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ABSTRACT

A total of 135 state directors representing 53 state vocational education units attended a 4-day seminar which focused on the foundations of the career education concept, systems for implementing programs, and conceptualizing the role of state vocational education divisions in bringing about the necessary changes. Some major presentations were: (1) "Current Status of Career Education in the States" by J. K. Coster, (2) "Adjustments Needed in State Agencies" by C. C. Shuman, (3) "Personnel Needs for Career Education" by P. L. Schalles, (4) "Strategies for Facilitating Development of Post-Secondary Programs" by L. Kunzman, (5) "Vocational Education in Career Education" A USOE View" by M. Russo, (6) "Research in Progress on Career Education Models" by A. J. Miller, (7) "Changing Roles and Functions in State Vocational Education Agencies" by D. E. Koble, Jr., (8) "Information Needs of State Directors" by J. D. McCracken, (9) "Areas That Need Research and Study" by C. F. Lamar, and (10) Several papers dealing with designing programs for elementary, secondary, and post-secondary students by E. Hauck, E. Simpson, J. Olson, and P. Weatherly. (SB)

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Leadership Training Series No. 39

FIFTH ANNUAL NATIONAL LEADERSHIP DEVELOPMENT SEMINAR FOR STATE DIRECTORS OF VOCATIONAL EDUCATION

THE ROLE OF VOCATIONAL EDUCATION IN CAREER EDUCATION

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THE CENTER FOR VOCATIONAL AND TECHNICAL EDUCATION
1960 KENNY ROAD
COLUMBUS, OHIO 43210

THE OHIO STATE UNIVERSITY

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The Center for Vocational and Technical Education is an independent unit on The Ohio State University campus. It serves a catalytic role in establishing consortia to focus on relevant problems in vocational and technical education. The Center is comprehensive in its commitment and responsibility, multidisciplinary in its approach, and interinstitutional in its program.

The Center's mission is to strengthen the capacity of state educational systems to provide effective occupational education programs consistent with individual needs and manpower requirements by:

- Conducting research and development to fill voids in existing knowledge and to develop methods for applying knowledge
- Programmatic focus on state leadership development, vocational teacher education, curriculum, and vocational choice and adjustment
- Stimulating and strengthening the capacity of other agencies and institutions to create durable solutions to significant problems
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LEADERSHIP TRAINING
SERIES NO. 39

FIFTH ANNUAL
NATIONAL LEADERSHIP DEVELOPMENT SEMINAR FOR STATE DIRECTORS OF VOCATIONAL EDUCATION

The Role of Vocational Education in Career Education

Compiled and Edited by

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The Center for Vocational and Technical Education
The Ohio State University
1960 Kenny Road
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National Institute
of Education

FOREWORD

A national priority for all of education is the implementation of the career education concept. The Center for Vocational and Technical Education complied with this need by conducting the Fifth National Leadership Development Seminar on the theme of "The Role of Vocational Education in Career Education."

Staff members from The Center worked closely with members of the state directors group in planning and conducting the conference. The theme proved to be a timely topic for state personnel. One hundred thirty-five leaders representing fifty-three state vocational education units attended the seminar.

Emphasis was focused on the foundations of the career educatior concept, systems for implementing programs, and conceptualizing the role of state vocational education divisions in bringing about the necessary changes. The seminar: (1) reviewed foundations underlying the concept of career education as currently formulated; (2) studied innovative concepts, processes, and systems useful in the development of career education programs; and (3) conceptualized state planning in vocational education in selected critical areas related to the implementation of programs of career education.

High interest and enthusiasm were displayed by the seminar participants as they exchanged ideas and discussed concepts. Contributions of nationally recognized authorities and the practical solutions to problems facing vocational education formulated by the seminar participants are reflected in the proceedings that follow.

Recognition is due Daniel E. Koble, Jr., research specialist and Robert U. Coker, research associate, at The Center for their efforts in directing the seminar. An expression of appreciation is also in order for Center staff members Darrell L. Ward, Douglas Pine, Linda M. Gartman, Steve Nelson, Susan Conway, and Nancy Lares for their advisory and supporting roles in making the 1972 seminar a reality. The assistance of the planning committee and officers of the National Association of State Directors of Vocational Education is gratefully acknowledge.

Robert E. Taylor
Director
The Center for Vocational
and Technical Education

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SUMMARY

Career education may generally be defined as an educational concept that combines the total resources of vocational education with those of academic education in an effort aimed at assisting students to secure and be successful in a first experience beyond high school. In addition, career education provides the student with successful experiences in the school environment while building student self-confidence in seeking experiences beyond school as either an early leaver or graduate.

The foundation of all programs designed for career development is a sound system of student orientation, exploration, and guidance. The activities carried out under this system form a continuum that begins when the student enters school and continues after he leaves the formal school program.

An important consideration in reorienting the public school system toward career education is deciding whether to eliminate all general aspects of the current program and replace them with entirely new components or to revise, upgrade and reorient these segments. Since there is little question that all programs have made important contributions in the past, serious consideration should be given to an assessment that would allow for strengthening their desirable features and eliminating or replacing the less desirable features.

Each state unit must ultimately decide upon the strategy it will employ in developing and implementing unique objectives for career education. Several suggested routes are:

1. Task force -- A task force of state department of education staff members, local educational agency personnel, employees, etc., representing both academic and vocational interests could develop the necessary strategy for implementing career education over a period of time.

2. Workshop -- A workshop of suitable duration could be held to formulate procedures and philosophy. Again, both academic and vocational types should be included.

3. Specialist -- A career education specialist could be employed to coordinate the development of objectives and a plan. He should be capable of working with both academic and vocational educators.

4. Other possible strategies include:

   a career education director at the state level

   an academic coordinator-director at each concerned institution or agency

   local contact people

   regional task forces

   community college leadership

   special projects

   state models in selected pilot areas

Each state should begin now to develop plans for instituting and implementing career education at the local school level. The scholar scientists are busily researching and testing organizational approaches for presenting career education, but state level administrators must give leadership and direction to the local educational agencies if these efforts are to bear fruit.

Every state agency has a responsibility to provide local educational agencies with the following resources in order that they might serve the career development needs of students:

1. Financial assistance
2. Technical and process aid
3. A master plan for statewide direction
4. Knowledge about career education
5. A delivery system for producing knowledgeable teachers and administrators (in-service and preservice)
6. The development of local and/or regional plans
7. Periodic evaluation
8. The identification and utilization of regional and/or local expertise, i.e., business and industry
9. A mechanism for spreading information about existing projects or their components to other educators--trips, seminars, consultants, etc.

State directors of vocational education and their staffs will be called upon and expected to give leadership to the development of programs relating to the concept of career education. Therefore, it is extremely important that they be knowledgeable and competent in this critical area.

Each state division of vocational education should begin now to develop guidelines and position papers that define their role and function in the implementation of the career education concept.

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section one:

A Rationale for Career Education

Foundations of Career Education

By Norman C. Gysbers*

To understand life career development and the potential it has for restructuring the processes and activities of guidance, it is first necessary to know something about the evolution of the meaning and use of the concept. The first section of this paper will examine some of its antecedents. In this section, you will see a change in the meaning and use of some terms. The term vocational guidance was used by early writers and practitioners. The terms career, career guidance, and career development did not become popular until the 1940's and 1950's. Some writers still use the term vocational guidance today but the meaning they attach is broader and more encompassing than it was at the turn of the century. The original definition, with its point-in-time focus and its attention to occupational choice, gave way to a life-long focus with attention on the many choices which occur as a person implements his self concept. The second section of the paper will introduce and describe an even broader concept of career development than was originally outlined in the 1950's and 1960's. This new concept, called life career development, will be examined for its potential to restructure the processes and activities of guidance.

Life Career Development Antecedents

In the Beginning

At the turn of the century the term life career development was not used. Personnel in vocational education and guidance focused their attention on one aspect of life career development: occupational choice. The techniques and practices to facilitate such choices were called vocational guidance. In Frank Parsons' book *Choosing a Vocation*, we have a clear statement of the typical formulation of vocational guidance at that time.

> In the wise choice of a vocation there are three broad factors: (1) a clear understanding of yourself, your

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> aptitudes, abilities, interests, ambitions, resources, limitations, and their courses; (2) a knowledge of the requirements and conditions of success, advantages and disadvantages, compensation, opportunities, and prospects in different lines of work; (3) true reasoning on the relations of these two groups of facts. (Parsons, 1909)

During a relatively short period of time, using a structured interview approach, a vocational counselor would meet with an individual to help him analyze himself. Concurrently, occupations would be explored in a similar manner. As a result of such verbal exploration, a matching or true reasoning concerning the relationships between these two sets of data was assumed to occur. Parsons' formulation of vocational guidance indicates that he viewed guidance as an event that took place in a person's life, probably sometime during middle or late adolescence. To him it consisted of a series of contacts with a counselor during which an individual examined himself and the work world.

The anticipated outcome of Parsons' approach was that an individual would choose an occupation best suited to him. The emphasis was on occupational choice. This same theme was echoed and expanded upon by most guidance workers who followed Parsons, particularly during the early 1900's. Today, the work of Parsons and those who later expanded and elaborated upon his ideas is characterized as the trait-and-factor approach to occupational choice.

At the same time that Parsons and other early practitioners were perfecting their approaches to vocational guidance, other events were taking place that were to have considerable impact on the practice of vocational guidance. The psychometric movement began and flourished. As Katz (1963) pointed out, the trait-and-factor approach to vocational guidance (as we now label Parsons' formulation) with its primary emphasis on choice received a strong boost from developments in psychometrics. Psychometrics "provided practitioners with handy instruments and neat quantifications" (Katz 1963) to carry out the first step in Parsons' formulation of vocational guidance. Also, substantial progress in analyzing and understanding the work world has taken place since the turn of the century. Better, more accurate, and up-to-date occupational information became available as a result and served to strengthen the second step in Parsons' formulation.

At the same time that substantial strides in psychometrics, work world analysis, and occupational information were being made, however, research evidence began to accumulate that pointed to the many inadequacies and the severe limitations of the trait-and-factor approach to vocational guidance. For example, in 1955 and 1956 Thorndike and Hagen (1959) conducted a follow-up study of the postwar civilian occupations of men tested in 1943 on an Army Air Corps test battery. Their findings point out the limitations of tests to predict occupational membership and success.

> There is no convincing evidence that aptitude tests or biographical information of the type that was available to us can predict degree of success within an occupation insofar as this is represented in the criterion measures that we were able to obtain. This would suggest that we should view the long-range prediction of occupational success by aptitude tests with a good deal of skepticism and take a very restrained view as to how much can be accomplished in this direction. (Thorndike and Hagen, 1959)

As such evidence began to accumulate, disillusionment with the trait-and-factor approach to vocational guidance occurred. It became clear that many of the assumptions on which the trait-and-factor approach were based were not valid and that new understandings were necessary. Katz (1963) succinctly states the problem and suggests the appropriate role of trait-and-factor methodology.

> However, they fail to remove the basic deficiency of the theory, which is premature concentration on the content of an individual's occupational choice, that is, commitment at an early stage to some verbalized occupational preference in terms of which "subsidiary decisions" are to be made. It is not surprising, then, that the theory leads to an approbation of consistency in the content of choice, that is verbalized preference. Repeated documentation of the inconstancy of such verbalized occupational choices has often been interpreted to mean that "more" or "better" guidance is needed.
>
> Thus, it can be seen that trait theory started with the hypothesis that occupational choice does tend to take place in this way, only more so. Therefore, guidance practices were aimed at facilitating a more exact homogeneity of membership in each occupation and at eliminating waste, vacillation, or error along the way.
>
> In the absence of convincing evidence for the existence of occupational monotypes or arguments for establishing them, trait-and-factor theory is limited only to the determination of decisions, it is not a theory of occupational choice at all, but only one element that can be worked into a more comprehensive theory of occupational choice. Perhaps it may best be regarded as an expression of the reality element that affects occupational sorting. It encompasses observations of what

> happens with particular reference to the content of choice and the results of selection, but does not penetrate beneath the surface of events to explain the process of choosing or to furnish a clear rationale for intervention in that process.

New Views

Beginning in the 1940's, but particularly during the 1950's, a number of writers and researchers began to suggest new ways of looking at human behavior in general and vocational guidance in particular. The work of Donald Super illustrates these new views.

> More than any other single writer, researcher Super has been instrumental in freeing vocational guidance from the static, single-choice-at-a-point-in-time concept, in drawing attention to the potential contributions of sociology and economics to the field, and in placing the study of vocational behavior in the context of human development. To designate this newer emphasis, Super advanced the term "vocational development." His views were set forth in an influential series of journal articles . . . and were extended and integrated in his book *The Psychology of Careers*. (Borow, 1964)

One illustration of Super's view of vocational guidance is his succinct statement of the need to shift the traditional focus of vocational guidance from concentration on a single-occupational-choice-at-a-point-in-time strategy to understanding and enhancing the vocational behaviors that occur at different life stages over the life span. Occupational choice, according to Super, must be understood

> . . . not as an event occurring at a point in time and explainable by determinants which can be observed adequately at the same point in time, but rather as a process which takes place over a period of time, and which is best explained by a combination of determinants which themselves interact, are modified, and thus develop with time. (Super and Bachrach, 1957)

The work of other researchers and writers such as Ginzberg, Roe, Holland, and Tiedeman and O'Hara during the 1950's and 1960's has continued to add to our knowledge and understanding of human behavior in the context of career development. Substantial changes have taken place in the theory and research underlying vocational guidance. These changes have been summarized by Gysbers and Moore (1971) as follows:

1. The single-occupational-choice-at-a-point-in-time focus of the early practitioners of vocational guidance has given way to a broader, more comprehensive view of the individual and his career development over the life span. The trait-and-factor approach to vocational guidance has been placed in proper perspective. No longer is it seen as the total and only approach to vocational guidance. Now it is understood and appreciated as one methodology that has a part, but only a part, to play in promoting and enhancing career development.

2. The specific age focus of traditional vocational guidance--the notion that an occupational choice is made once and for all during middle or late adolescence--is not valid. We now understand, as Super and Bachrach (1957) have pointed out, that this aspect of development is "a process which takes place over a period of time, and which is best explained by a combination of determinants which themselves interact, are modified, and thus develop with time." This process is called career development.

3. Since career development occurs over the life span, educational personnel at all levels (kindergarten through adulthood) have a part to play in stimulating and enhancing this aspect of total human development. No longer can we restrict our activities to grade 9 and consider our responsibilities over when these activities are completed. Elementary, secondary, post-secondary, and higher education personnel must understand that effective programs of career guidance begin in the elementary school and continue through the adult years. When viewed in this manner, career guidance is in the mainstream of education and is not simply a collection of ancillary services.

4. People at work are no longer seen only as objects through which occupations are analyzed and classified. Rather, we now understand that a work setting can be used as a medium to help people better understand themselves.

5. Vocational guidance, once understood as a somewhat simple process of matching people to jobs, is now understood in the context of the complex process known as career development. We realize that in the past we have underestimated the resources needed to effectively develop and manage programs of career guidance to enhance and promote career development. We now realize that it must be treated as a major educational goal.

An Emerging Concept

As we look back at the antecedents of life career development in light of our more complete knowledge of human growth and development, we now understand that the occupational choice concern of the early practitioners must be placed in the context of total human development. While occupational choice is extremely important and attention in our guidance practices must be focused upon it, it cannot be viewed as something separate from the other settings, roles, and events of an individual's total life. And in fact, the process of occupational choice is better understood and facilitated when it is viewed from this broader perspective.

An analysis of the antecedents of life career development as well as many current writings reveal that the single-occupational-choice-at-a-point-in-time formulation has been encompassed by a broader emphasis that focuses on choices made over the life span. Increasing emphasis is being given to self development in relationship to occupational choice as well as to the many other types of choices in an individual's life. All dimensions of life are being focused upon not as separate entities, but as interrelated parts of the whole person.

> The concept of career encompasses a variety of possible patterns of personal choice related to each individual's total life style. The content of Comprehensive Career Guidance System programs assists youth to set life or "career" goals in these areas:
>
> 1. Occupations
> 2. Education
> 3. Personal and social behavior
> 4. Learning-how-to-learn
> 5. Social responsibility (i.e. citizenship) development, and
> 6. Leisure time activities
>
> The broad definition of "career" leads to a concept of career education which encompasses all areas of youth development. This orientation allows and encourages the fulfillment of a broad range of youth needs; it is contrasted to conventional systems in which priority attention is directed only toward preparing youth for their future educational and vocational experiences, therefore reflecting a limited and fragmented view of youth development. (Jones, Hamilton, et al., 1972)

To represent this broad, all encompassing view, a colleague of mine (Earl J. Moore) at the University of Missouri and I use the term life career development. The word life is used to indicate that we are talking about the total person, about all aspects of his growth and development over the life span. The word career identifies and relates the many settings in which people find themselves (home, school, occupation, community), the roles that they play (student, worker, consumer, citizen, parent), and the events that may occur in their lifetimes (entry job, marriage, retirement). The word development is used to show that people are continually changing over their lifetimes. We are always in the process of becoming. When used in sequence, the words life career development bring these separate meanings together. But at the same time, they mean more than these words put together in sequence. Taken collectively, they describe the whole person--a unique person with his own life style.

Viewed from this broad perspective, it should be clear that:

1. We do not use the term life career development to label an educational program. We reserve this term to describe the total growth and development process of all individuals.

2. We do not use the term career as a new word for occupation. People have careers, the work world has occupations. Unfortunately, in our opinion, too many people use the word career when they should use the word occupation.

3. We do not think of the word career as being restricted to some people. All people have a career: their life is their career.

4. We do not use the word career to delineate one part of human growth and development. While it is useful sometimes to focus on different kinds of development--physical, emotional, and intellectual, for example--we also need a way of integrating these types of development in a meaningful way. We advocate the use of the concept life career development as an organizing and integrating concept.

5. We do not substitute the term career guidance for vocational guidance and then define it in the traditional sense--the idea that there is vocational, educational, and personal-social guidance. We believe there is one kind of guidance, career guidance.

The concept of life career development offers a new point of departure for improving and extending comprehensive career guidance programs. The traditional and currently popular formulation of guidance (that guidance consists of three aspects, educational, personal-social, and vocational) has resulted in fragmented guidance programs and the development of separate kinds of programs and counselors. Educational guidance is stressed by academic/college personnel; personal-social guidance becomes the focus and therefore the territory of mental health workers; and vocational guidance becomes the arena of manpower/labor economists. Career guidance, based on life career development principles, has the potential of removing these artificial barriers so that there can be a single unified approach.

Life career development concepts also serve as the body of knowledge from which the content of career guidance programs can be derived. Unfortunately, some people conceive guidance to be a service area that functions only in a supportive way. Using life career development concepts as a base, goals and objectives can be identified and programs can be developed and implemented so that career guidance becomes a major educational program. Finally and most importantly, career guidance programs based on life career development concepts provide a unified approach to meeting the guidance needs of all people, of all ages, at all educational levels.

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Current Status of Career Education in the States

By John K. Coster*

Background

This paper is based, in part, on a project entitled "Assessing, Documenting, and Spreading Exemplary Programs of Career Education" being conducted by the National Center for Occupational Education pursuant to a grant from the National Center for Educational Communication, U.S. Office of Education. Under the terms of the grant, the National Center for Occupational Education undertook the identification and description of comprehensive programs of excellence in career education throughout the nation.

Since the entire concept of career education was only in embryo at the time the project was begun, the traditional ways of identifying exemplary programs through consideration of evaluation data and program results were not applicable. In point of fact, few programs had even begun formal evaluations and fewer still had evaluative results available for examination. Thus, the identification of programs of excellence proceeded along different lines from those normally taken. First, in order to insure the broadest possible coverage of existing programs, a wide variety of persons knowledgeable in educational programs were contacted and asked to submit nominations for exemplary programs in career education. Persons contacted included state directors of vocational education, directors of research coordinating units and personnel in the regional offices of the Department of Health, Education and

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Dr. Robert L. Morgan, resesearch associate at the National Center for Occupational Education, is directing the project discussed here. Dr. A. B. Moore, currently a project director at The Center for Vocational and Technical Education, was project manager. Ms. Mollie Shook, research assistant at the National Center for Occupational Education, was project coordinator. Mr. J. K. Dane is assistant to the director, National Center for Occupational Education.

Welfare, among others. As a basis for nominating programs, a brief description of career education was provided as a guide. This description is attached as Appendix A. Approximately 250 programs were nominated across the country as a result of this initial effort. All nominated programs were then contacted to determine their interest in participating in the project. Of the nearly 150 school systems expressing interest in participation, 102 systems completed self-study forms (Appendix B) that were used to make the first cut at exemplary program identification.

The first cut was made by a panel of consultants retained by the National Center for Occupational Education. The consultants developed the criteria for program selection and identified forty-one programs for on-site visitation. Another team of consultants was selected to conduct on-site reviews of the identified programs. Armed with a program guide developed by the initial team, groups of four persons (three consultants and a project staff member) visited each of the forty-one identified programs, analyzed each program in terms of the guide, and prepared a report of the program's operation. Finally, the reports were reviewed by the project staff and, in consultation with the team leaders, fifteen programs were selected for transmittal to the National Center for Education Communication for ultimate publication by that agency. Appendix C lists the fifteen programs finally selected.[1]

The forty-one programs that were included in the project constitute no sample, and may best be described as a selected group of programs. They are, however, not drawn from a homogeneous group of schools. The schools vary in geographical location, rural versus urban characteristics, size of school system, and the initial impetus for the program. As to the latter point, the impetus for initiation came from the local school and community itself, from the state department of education, and from the opportunity to participate in federal programs including Title III programs of the Elementary and Secondary Education Act and Part D programs of the Vocational Education Amendments of 1968.

The initiation of the programs that were visited antedated the current interest in career education that was launched by Commissioner Marland's initial address.[2] Essentially, the charge of the National Center for Educational Communication was to identify programs that were similar to the programs described by the dialogue sparked by the commissioner's pronouncements. The field responded with nominations, and the selections were made by the consultants. But perhaps the most significant part of the project is that the school officials, administrators, and teachers told the project staff and consultants what they thought career education is. This paper attempts to synthesize the contemporary perceptions of career education found in forty-one schools. The synthesis will attend to the way in which the philosophy of career education is seen at the level of the school systems themselves, as that philosophy is reflected both in the explicit statements by school system personnel of the philosophy, mission, goals and objectives of their programs, and as that philosophy may be revealed implicitly in the day-to-day operation of the program. In addition, we will attempt to draw some conclusions regarding the role of vocational education and vocational educators in career education and at least adumbrate some of the problems of implementing the philosophy of career education as it now seems to be expressed.

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[1] Synopses of the forty-one programs, based on the self-studies, are given in Robert L. Morgan, Allen B. Moore, Mollie W. Shook, and Brenda Sargent, *Synopses of Selected Career Education Programs; Career Education Volume 1* (Raleigh: National Educator for Occupational Education, North Carolina State University, 1972).

[2] Sidney P. Marland, Jr., *Career Education Now.* Paper presented at the 1971 Convention of the National Association of Secondary School Principals, Houston, Texas, January 23, 1971.

Career Education Philosophy: Theory and Practice

Although the many career education programs we have examined reflect great disparity in specific goals and objectives for their programs and in the manner in which those goals and objectives are translated into practice through curricula, guidance, placement, and an assortment of other educational activities, there are some identifiable common themes. Most programs of career education are operating in systems with expressed philosophies of education that have been cast either as policies, philosophies, or in some cases, specific goals. It is from these statements of what we call philosophy that the synthesis of the philosophy of career education has begun. These are the explicit philosophies; the guiding statements for the operation of the programs. We recognize that these statements are idealistic, and they may sometimes bear little resemblance to actual practice. Yet we present them for what they are--pure statements of the school system's ideal for education. The continuation of the analysis attends to a more subtle expression of the philosophy of career education. This is contained in the actual operation of the program. Here we assume that the actual program operation carries within it an abstract and implicit philosophy of what career education ought to do. This section of the paper is divided into two parts representing the explicit and the implicit philosophies.

The Philosophy as Expressed

Perhaps the most consistently expressed theme in the philosophies of the various programs visited was the reaffirmation of the dignity and worth of all human beings as they express themselves through work. Nearly every program examined made explicit reference to the dignity of work and to the necessity for communicating a sense of that dignity to students. To quote from one school's philosophy, "It is the duty of the schools to provide those experiences that will lead each child: to become a responsible citizen willing and able to live as a productive, well-adjusted adult, with respect for self and others and with appreciation for the dignity of all beneficial work."

The notion that all work has dignity is scarcely new, yet within the recent past it seems to have fallen on hard times. As a historical theme, the dignity of work had a prominent place in the philosophical notions of Martin Luther. To quote Tilgher ". . . Luther swept away all distinctions between religious piety and activity in the world, all questions of superiority of one to the other. So long as work is done in a spirit of obedience to God and of love for one's neighbor, every variety of labor has equal spiritual dignity. . . ."[3] The history of mid-twentieth century America seems to indicate that we had long strayed from this particular tenet of the Protestant ethic. The evidence of differently regarded social statuses that has been accumulated through the ratings of various occupations on scales of status and desirability clearly indicate that we have come to an elitist view of the occupational structure. In fact, vocational education itself has suffered from this elitist notion. Yet the philosophy expressed by these school systems seems to indicate that a renaissance is taking place regarding the occupational structure. Though these are only ideal views, they convey the same notion that Martin Luther conveyed long ago, except that in the twentieth century the good of society has been substituted for the glory of God.

Another significant aspect of the attention to the dignity of work is the willingness of the schools to take the responsibility for instilling this value into the students. From a socially scientific viewpoint, this amounts to a near revolution in social history. From time immemorial, the family has been the social unit that bore the responsibility for training society's members in the work ethic. The philosophies expressed in the career education programs examined indicate quite clearly that the school systems are prepared to take over this traditional family role. One school system expressed it most strongly, though the notion was prevalent in many of those examined: "The schools are both the reflection and the moulders of the governmental and political philosophy, the economic structure and the value systems of the community, state, and nation." The attitudes and values they seek to mold are variously expressed, but a representative example comes from a small southwestern school district: "To develop positive attitudes toward work that will enable the student to motivate himself in the future to actively seek a career of his choice." Thus, it appears from the expressed philosophies of the school districts themselves that the schools are willing to shoulder the responsibility for the socialization of the young regarding the world of work. One might suggest that this acceptance of responsibility will be met with a reaction from those who are unwilling to allow it to occur or from those who find the value orientation of the school at variance with their own. We pass no judgment here but merely note the existence of the condition for others to consider.

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[3] Adriano Tilgher, *Homo Faber: Work Through the Ages* (Chicago: Henry Regnery Company, 1958), p. 49.

If the dignity of work is one consistent theme in the philosophies of school districts operating career education programs, the reaffirmation of the dignity of the individual is another. This theme recurs throughout the reports examined and was evident in the interviews with staff and administrators on the various programs visited. One goal of career education is to assure the individual an identity, a place in society. Career education, from this viewpoint becomes a process of self-study and self-enlightenment. The provision of this sense of dignity and personal worth is to be provided in general through an appreciation of the individual's personal contribution to the welfare of his society through his work.

There is nothing especially new about the attention to the individual. Self-realization is a commonly accepted aim of American education. The contemporary perception expressed by the personnel in the forty-one school systems called for increased emphasis on one's career as a means of self-realization and for enriching the curriculum to afford opportunities for pupils, especially at the elementary level, to pursue a variety of educational experiences that augment their feelings of personal worth.

In summation, then, although each individual program expressed a different set of philosophies, goals, and objectives, there were several consistent themes identifiable in almost all the programs. These themes were identified explicitly and represent modern reaffirmations of themes that have been part of our western history for many years, though lately not greatly in evidence. The two we have underscored as important philosophical foundations are the dignity of all human work and the dignity and worth of each individual in society.

The Philosophy as Implied

The implementation of career education programs varies as greatly as the philosophies, goals, and objectives. At a practical level, there does seem to be some common ground upon which nearly everyone agrees. For instance, the vast majority of programs split their efforts into career awareness, career orientation, and career preparation. This is an obvious reflection of both the necessity to accommodate and adapt career education programs to existing educational systems and the prevailing notions of human development and the intellectual capacities of the human organism at various stages in that development. Beyond this common ground, however, there are several other areas of agreement that are not conditioned solely by the nature of the system, but rather reflect an implicit philosophical view of the nature and value of particular types of education experiences.

First, there seems to be a concentration on the notion of the individual's own experience and the value of experience to education. This is reflected in the tendency toward the inclusion of hands-on experience in the curricula. Yet it is not simply the notion of hands-on experience that is noteworthy, but the broader idea that active participatory experiences are relevant and valuable parts of the education process. This idea is scarcely new in American education, and those familiar with the history of education in this country are well aware that there have been cycles in educational philosophy in which the more passive and general classroom experience holds sway and then gives way to the more specific, active participatory experiences. It is apparent from the material examined from the forty-one career education programs that the importance of participatory experience is again coming to the fore.

A companion notion to that of participatory experience is the perception of the relationship between the school and the community. Historically, school systems in this country have had a view of the importance of the community in relationship to the school system and a notion of the community as a potential resource. Career education represents an actualization and formalization of this view. Many of the career education programs examined are now working in close and productive relationship with their surrounding communities. Essentially, they are extending the walls of the school to encompass the total community boundaries--making the community itself as a laboratory for the school. In many cases, specific training is being acquired in the community for credit, which allows the school to offer training for which there would otherwise be either insufficient demand or insufficient funds. Although the amount of community involvement varies widely, the concept is common to all programs and represents a consistent theme in career education.

We have identified four significant aspects of the philosophy of career education as it presently exists in programs throughout the country. They are not the only common features, nor are they necessarily the most important. Yet they do form at least part of the common ground upon which the new concept of career education seems to be building. We underscore the fact that these philosophies are not those of the authors but those expressed or implied in the programs we examined. Our job has simply been one of reporting the perceptions of career education as we see them. However, we would be remiss in our duties if we did not turn our attention to some of the implications of these philosophical positions, their relevance to vocational education, and the potential problems in implementing them. The following section presents our views of the position of vocational education within the total context of career education.

The Role of Vocational Education in Career Education

Career education, as it is being practiced, is a state of mond or mode of inquiry of examining the world. It is more of a philosophy than a content or discipline. It is a philosophy that elevates the significance of the individual, his experiences, his work, and his decisions. Content is derived from the related disciplines or areas of work. And content has meaning to the extent to which it has meaning for the individual.

Taken in this context, the role of vocational education in career education becomes relatively clear. If vocational education may be defined as the set of specific or at least relatively specific experiences and activities that distinguish individuals, then vocational education includes the content required for performance in an occupation. That is, the set of activities required for successful pursuance of an occupation can be defined with the content based on occupational performance requirements.

Career education, as a philosophical orientation, cannot be implemented without that phase of education that we have historically come to call vocational education. There is no way that one can set into motion a philosophical reorientation of education, which dignifies all individuals and dignifies all work, but which ultimately does not provide each individual with a specific preparation for work as a part of the total educative process.

The acceptance of career education in its philosophical orientation is most pronounced at the elementary level and least pronounced at the secondary level. The reports are replete with examples of expending the domain of experiences of elementary children to promote awareness of self and community and exploration with self and community and to dignify the meaning of these experiences. There is much more evidence that awareness and exploration activities that relate to the production of wealth and services are being correlated with the teaching of the basic educational skills at elementary as contrasted with higher levels. Experience gives rise to experience.

The reconceptualization of career education is somewhat less pronounced in the middle grades. Exploration, however, is recognized as an activity of worth in its own right. Exploration is experientially oriented, with primacy on the individual's own exploratory experiences. Perceptions of career education in the middle grades, however, are somewhat restricted to exploration through the tactile sense. This perception tends to restrict the range of occupations that may be explored.

At the secondary level of career education there is a notable tendency to think of career education as synonymous with skill development. Such a position, it should be noted, is inconsistent with the perceived philosophical orientation that is expressed at the elementary and middle grade levels. It is inconsistent with the educational philosophy that elevates the significance of work and the individual. Content for preparing individuals for successful performance in an occupation leading to a career is drawn from a variety of sources. Any professional school is a career education institution. Indeed, the only institutions that are not career education institutions are those institutions that promote the acquisition of knowledge for its own sake. Viewed as such, the activities of the secondary school that are required for matriculation by subsequent institutions where the individual will be prepared to launch his career, are expressions of career education.

There is an inherent danger that career education will be associated with occupations that are characterized by the manipulation of data and things, rather than with the entire range of occupations in the occupational structure. The primacy of career education as lending credence to the dignity of the individual and work precludes it from being associated with any one segment of the range of occupations. The perception of skill development as being equated with career education does not augur for the development of the role of vocational education in career education. Nothing will be gained. The philosophical orientation of career education places its major importance on vocational training, regardless of the level. Since career education is a reaction against elitism of all sorts, any position of restriction is detrimental to the implementation. Further, if society is to allocate its resources on the basis of promoting the dignity of the individual and work, the place to start is with those individuals who traditionally have been shortchanged in the educational system.

There is another way of examining the perception of career education at the secondary level. Career education is closely associated with, if not synonymous with, equality of educational opportunity. On the one hand, it is argued that skill development is not synonymous with career education at the secondary level. The notion of career education supports any activity that gives rise to preparing for work. But equality of opportunity dictates that each person be prepared for employment prior to leaving school and that each person be placed in a job or in the next level of education upon completion of or leaving the preceding level.

APPENDIX A

Career Education

Career education is a comprehensive educational program focused on careers that begins in grade 1 or earlier and continues through the adult years. Career education helps the student to develop a personal plan for lifelong learning: learning about the world we live in, the people who inhabit it, the social and physical environment; learning about the sciences, arts, and literature we have inherited and are creating; and learning about the way in which the world's peoples are interacting. Effective career education equips young people to live their lives as fulfilled human beings. For elementary and secondary education, the program may include a structuring of basic subjects around the theme of career opportunities and requirements in the world of work. In elementary school, students may be informed about the wide range of jobs in our society and the roles and requirements involved. In junior high school, students may explore specific clusters of occupations through hands-on experiences and field observation, as well as classroom instruction. In senior high school, students prepare for job entry and also prepare for further education. Placement in a job or in further education are options open to all students.

Career education not only provides job information and skill development but also helps students to develop attitudes about the personal, psychological, social, and economic significance of work. Guidance and counseling activities assist the student in developing self-awareness and in matching his interests and abilities against potential careers. Development and fostering of the avocational and recreational interests of the student help him to prepare for well-rounded living in the world in which leisure time is becoming more plentiful.

Some characteristics of career education are:

1. Students leaving high school are prepared for, and actively assisted in securing, placement in a job, non-baccalaureate post-secondary education, or baccalaureate and higher degree education.

2. Careers may be studied in relation to a field of work or a cluster of occupations related to each other, such as the construction occupation cluster or the health occupations cluster.

3. The program may be organized in a pyramid approach, moving from the general to the more specific orientation to the world of work in the elementary grades. Students are

provided with exploratory experiences in junior high school. These experiences, in turn, provide knowledge and experience to assist decision-making regarding areas of study and preparation to be pursued in senior high school. Intensive guidance and counseling are provided concurrently with classroom instruction and skill development to improve the student's decision-making abilities.

4. Actively participating advisory councils composed of local employers and union representatives and involved community groups may be part of the operation of a career education program.

5. Multimedia learning approaches such as films and video tapes that are effective with students having a wide range of learning styles and skills may be used. Types of instructional programs include classroom and laboratory activities, field observation, work experience, and on-the-job training.

6. Career education involves extensive use of cooperative education to assure the availability of preparation in a wide variety of occupational fields.

7. Career education focuses not only on the needs of individuals but also on the needs of society, the economy, and employers.

8. Career education provides knowledge and experiences that enhance job adaptability in a time of rapid changes due to technological advances and fluctuating economic trends.

The description and characteristics presented here are those of an ideal program. When considering schools for nomination, it is not necessary that they display all of the characteristics listed. Final judgment on whether or not a school should be nominated should rest on a consideration of the objectives of the school's program. If the objectives are congruent with the concept of career education, the school should be nominated.

APPENDIX B

Self-Study for Nominated Career Education Program

Please respond to the following statements and, when applicable or convenient, supply supplemental materials to explain your responses.

1. What grade segments does your career education program span?

   K-12____; K-3____; 4-6____; K-6____; 7-8____; 7-9____;
   10-12____; 11-12____; specify other segment categories____.

2. What percent of the students in the school are directly involved in each segment of the career education program?

3. Briefly list and describe the main goals and objectives for the overall career education program and each segment in the progam.

4. How is the career education concept being assimilated into the educational program (e.g., strategies for installation)?

5. Briefly list and describe those features particular to your career education program for the various grade segments.

6. Briefly list and describe the curriculum changes that took place in implementing the career education program.

7. What supportive services are available to the students in each segment of the (e.g., guidance, counseling, placement, follow-up) career education program?

8. What in-service training was provided for administrators, teachers, and staff in implementing the career education program?

9. Identify and explain how community resources were utilized in planning, actuating, and evaluating the career education program.

10. What opportunities are available to students in the career education program for job preparation?

11. Briefly list and describe the data that is being gathered as evidence of success or failure in each segment of the career education program.

12. What provisions have been made for placing students in jobs and/or further educational programs upon their leaving school?

APPENDIX C

The fifteen programs selected for final submission to NCEC are:

1. Anne Arundel County Career Development, Annapolis, Maryland
2. Ceres Unified School District, Ceres, California
3. Cobb County Occupational and Career Development Program, Marietta, Georgia
4. Helena Public Schools, Helena, Montana
5. Holyoke Schools, District RE-IJ, Holyoke, Colorado
6. Kershaw County School District, Camden, South Carolina
7. Knox County Schools, Knoxville, Tennessee
8. Lawrence Unified School District #497, Lawrence, Kansas
9. Lebanon Union High School, District #1, Lebanon, Oregon
10. Mid-Hudson Career Development and Information Center, Pleasant Valley, New York
11. New Albany School District, New Albany, Mississippi
12. Pontiac City Schools, Pontiac, Michigan
13. Renton School District #403, Renton, Washington
14. Springfield Public Schools, Springfield, Oregon
15. Toledo City Schools, Toledo, Ohio

section two:

Current Problems in Career Education Related to Vocational Education

Adjustments Needed in State Agencies

By Conrad C. Shuman*

The implementation of career education, sequentially and procedurally, will require many adjustments in: (1) educational attitudes, (2) educational organization structure with associate authority, (3) educational funding sources, and (4) educational evaluation methodology.

Educational Attitudes

Public relations efforts must be amplified to explain and sell the concept of career education to the general public, legislators, administrators, teachers, and students. Perhaps education may be indicted for explaining and selling career education only within the educational fraternity, thus neglecting the buyers of the product and decision-makers who allocate the funds.

Higher education has remained complacent to the development of a relevant educational system for all people by not initiating changes in teacher education standards and authorizing flexibility in student programs--a necessary characteristic of career education.

Several professional educational organizations have been conspicuously prominent by their silence in endorsing and advocating career education to the members of their organizations. This noncommittal position could be a significant contributing factor in the disinterest reflected in segments of education.

Perhaps the unacceptance of career education by different segments of society is a fault of the educational system, inasmuch as career education has been defined in a multiplicity of definitions that is confusing to many people. To firmly entrench career into our educational system a conformity of definition must be established and communicated to all interested communities.

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*Mr. Shuman is director of vocational education, State Department of Public Instruction, Dover, Delaware.

Educational Organization Structure

Career education will be more speedily implemented if an administrative structure with appropriate authority is developed from the level of chief state school officer down to a coordinator of career education position within the local educational agency. State departments of education should employ career education specialists within the curriculum division and appoint a liaison person in each discipline of education (vocational, elementary, secondary, and higher education) to serve on a statewide career education council.

Local school districts should initiate long-range plans (preferably for five years) for the development of career education. These plans should be constructed through the input of community lay advisory committees, service organizations, business and labor task forces, administrators, and teacher committees composed of representatives of the learning area disciplines.

A coordinated administrative organization for career education, evolving from the federal level and permeating down to the instructional level, will enhance the chances of implementing the concept.

Educational Funding Sources

Career education program financing should be shared by all categorical areas, including: (1) the Vocational Education Act of 1963, (2) the Elementary-Secondary Education Act, (3) the Educationally Handicapped Act, (4) the Higher Education Act, and all associated agencies responsible for the educational process. Permanent sources of funding must be sought to sustain pilot programs and, ultimately, the fully implemented system of career education.

There is no greater commitment to career education than by contributory financial support to the cause.

Educational Evaluation Methodology

As pilot programs and mature systems of career education are developed, evaluative tools must be constructed to guide in the curriculum development; determine effectiveness of the instructional staff and school system; analyze performance skill levels; and assess job market needs.

If career education, once defined, is to replace our present standardized system of education, then all the resources of every agency associated with education must share its brain trust, funds, and ancillary contributions to the goal of "an educational opportunity for every individual according to his/her interest and need."

The Role of the State Director of Vocational Education

By Glen H. Strain*

Primarily, the problem seems to be the difficulty of getting the many publics that should be involved to have an in-depth understanding of the total concept of career education so that decision-makers will proceed. Another basic problem exists in how to properly utilize the career cluster concept and to interweave this throughout the curriculum, K-adulthood, including all facets of teacher education.

General Situation

While state and local school systems may look to Washington for national leadership, it would be contrary to the traditions of American education for the federal government to do more than call attention to national need, propose a logical response, cite examples, and perhaps suggest alternative models for local schools to consider in developing their own versions. The planning and implementation must occur at the school and community level, although they look to the state and federal agencies for information, resources, and technical assistance.[1]

Local educators look to the state board of education and to the chief state school officer, along with his staff, for guidance and direction of education within a state. Unless the policies of the state board of education (or other controlling board) support career education, and unless the state agency commits aggressive leadership in carrying it out, very little is likely to happen in career education at the local level.

In an attempt to coordinate the thinking toward career education, many states, through their department of education, have developed position papers on career education. It is very important that the state director of vocational education or members of his staff have an opportunity to have direct input into this position paper. It is believed that many of these position papers were developed as a result of the position paper on career education adopted by the National Association of State Directors of Vocational Education at Las Vegas, Nevada, on September 17, 1971, during the Fourth Annual National Leadership Development Seminar. This position paper has had wide distribution in many states.

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[1] *Career Education, A Handbook for Implementation* (Washington, D.C.: U.S. Office of Education, February 1972).

The state education agency allocates both federal and state categorical funds to local school districts and post-high school institutions. The state education agency leadership and fund allocation role clearly places the people in this agency in a crucial position in career education advocacy.

The leadership and coordination function at the state level is composed of six principle activities:

1. Advocating and generating interest and building motivation to move the entire state school system

2. Setting priorities in allocating federal and state funds and in reorganizing local education agencies for effort in career education

3. Developing curriculum and career education instructional materials

4. Collecting information and disseminating it among all participating school systems

5. Facilitating cooperation in program planning, promotion, and resource sharing among local school systems

6. Coordinating local school programs with programs in other states and special national projects[2]

All of the foregoing statements certainly have implications concerning the role of the state director of vocational education in establishing career education in a state. Specifically, the state directors involved in Study Group I suggested many responsibilities that they believe more or less spell out the role of the state director in this task. These suggestions follow:

1. The state director must be willing to assume the leadership role. It was generally agreed that unless the state director assumes positive leadership and involves others

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[2] Ibid.

in the state education agency, little is likely to happen at this level. He has the difficult task of providing leadership and active support without taking over as the recognized major force of promoting career education. His role is to assure that other educational leaders understand and support the concept.

2. He must work closely with the chief state school officer and his staff in providing guidance and direction for establishing career education. The state director, through the use of research and exemplary funds, can lead in helping to set up local programs involving the total concept of career education.

3. The state director must be the initiator, the innovator, the catalyst, and the coordinator in his state for career education. He must, however, play a hidden role rather than a dominating one; otherwise, there will be those who will continue to say that career education is just another name for vocational education. He must realize that acceptable career education relies upon the total school staff for implementation and, therefore, will need the support from all segments of education, not just vocational educators.

4. He must promote the philosophy not only at the state level, but also at the local educational level. He must be active in promoting changes in teacher education curriculum to include career education philosophy. He must promote in-service teacher education for career education. He should be alert to the possible funding that may assist in initiating programs at the local level.

One state director believes that a good approach concerning the role of state directors is to ask, in the following order, the most critical questions regarding career education: Why? What? How? When? Where? Who? Resources? The questions should be answered by politicians, parents, teachers, administrators, and students, and give opportunity for proper answers.

In conclusion, I would like to quote the last paragraph of Dr. Ted Bell's presentation at the Fifth Annual National Leadership Development Seminar for State Directors of Vocational Education.

> This is a time when many eyes are upon state directors of vocational education. Both the national and local leadership look to you to make the moves. You have a great opportunity, accompanied by a tremendous responsibility. Public opinion is with you, and the opportunity for career education, at long last come into its own, occupies the here and now.

Personnel Needs for Career Education

By Paul L. Schalles*

In developing the discussion topic, it was felt that before state directors could conceptualize state planning in vocational education as related to personnel needs for implementing programs of career education there must be a clarification of policy at the top level. Of the twelve states represented in this group, all had developed a general statement of philosophy concerning career education, but only three had moved toward an organizational structure designed to implement such a program concept.

It was acknowledged that the state director of vocational education should play a very significant role in directing the reorientation of professional development, not only for the vocational disciplines, but all elements and at all levels of education.

The discussion then centered around the strategies and alternatives that could be employed to bring about desired change in personnel at the following levels: state agency, local educational agencies, and teacher education institutions.

State Agency

Is the existing organization structured in such a way as to accommodate the proposed career education concept? Examples are:

1. The state director should assume a leadership role in directing attention to un-met needs (functions) that departments of education should consider in developing a total commitment toward career education. A number of states indicated that the organization within their departments of education would need some change in order to provide a system designed to meet the needs of all educable persons from early childhood throughout the productive period of adulthood.

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2. The state director should provide for the in-service education of vocational education specialists and advisors as well as guidance specialists and general education specialists and advisors to acquaint them with their role in meeting the objectives of career education.

3. State vocational directors and staff should participate in interdisciplinary workshops and serve on study groups to assist in formulating procedures for implementing career education.

4. State directors should assist in statewide public hearings to sound out local acceptance of proposed change in public education. Involvement at this level will help bring about an understanding and commitment on the part of top leaders within the community. State departments of education are taking this leadership approach.

Local Education Agency

How can vocational education be changed so as to impart to both youth and adults a broader understanding of the world in which they will live and work? Discussion regarding the state director's role in bringing about personnel change at the local level centered around this question. The nationwide trend toward placing greater emphasis on local initiative for educational, economic, and general community development activities would seem to identify a priority area for state directors. It was ascertained that local districts need more than funds; they need technical assistance from state staff and teacher education departments to bring about desired change. Examples are:

1. The state plan for vocational education should make necessary provisions for the preservice and in-service needs of local teachers, supervisors, and administrators.

2. The state director should provide specialized assistance to local programs, conduct workshops and seminars, and participate in in-service days.

Teacher Education

What role can the state director of vocational education assume in bringing about institutional reform? There was a general consensus that teacher education was in need of "retooling." Specific examples of the role of the state director in this effort are presented as follows.

1. Involve teacher educators in program planning at both state and local levels. This could be accomplished through workshops, seminars, and regional planning sessions.

2. Use the state plan to bring about desired change. Establish criteria for preservice and in-service programs for teachers and administrators that would develop leaders with the so-called "broad vision." Increased consideration should be given to disciplines other than the highly specialized area of vocational education.

3. Encourage teacher educators to focus attention on the special needs areas involving the inner-city, rural, and handicapped.

4. As purchaser of the product, state directors have a responsibility to establish criteria for evaluating the product of the teacher education institution.

Summary Statements

The following are alternative strategies for state directors to consider in planning for the personnel needs that will meet career education objectives:

1. Assist in developing a commitment for state departments of education to give full support to vocational education's role in the career education concept.

2. Examine the state vocational division's staffing structure, its personnel strength and expertise to determine the capability for developing and administering planned programs.

3. Provide for preservice and in-service education for state staff, local administrators, teachers, counselors, and supportive staff that will make it possible for these persons to have a complete understanding of the career education concept and the ways through which vocational education can take its place within this concept.

4. Examine teacher education services in terms of local program needs, i.e., teachers, administrators, and support services.

In planning to meet these personnel needs it should be emphasized that state agencies should become less directive and more supportive of the processes of institutional change at the local level. Local systems need more than monetary assistance. They need technical help from state education departments and teacher education agencies to bring about desired change within the program to meet the objectives of career education.

Areas That Need Research and Study

By Carl F. Lamar*

Statement of the Problem

In considering career education as an integral part of the total educational system, "What are the basic concerns that need to be studied and researched from the viewpoint of state divisions of vocational education?"

The Situation

Career education has become a high national priority for all of education in the discussions of many groups in government and educational circles and among lay organizations. There have been many meetings conducted on the subject, and considerable financial support has been made available to promote pilot or exemplary projects. Opinion surveys, evaluation studies, and fact-finding reviews have been conducted across the country for the purpose of getting a fix on the status of the thinking and activities in support of career education. Many position papers on career education have been prepared at the federal and state levels. In some states, governor's conferences have been held, legislation has been passed, and funds have been appropriated to support the implementation of career education. The U.S. Congress included $14 million in its recommended authorization for fiscal year 1973 to support career education. The National Institute of Education has been given the responsibility to provide leadership in promoting and coordinating research, pilot, and exemplary efforts in this area. They may be supported by the U.S. Office of Education, other agencies of the federal government, and many professional organizations. Many writers for publishing companies are busy in moving with the "tide of national excitement" generated by the spokesmen for career education.

The time seems to be rapidly approaching when a decision must be made as to whether educational leaders will continue to "cut bait or begin fishing" with regard to the implementation of career education. The skeptics are beginning to raise their voices. They want to be heard. Do we really have a new vitalizing concept of education that will answer the questions of relevance, accountability, and performance requirements of the economy and society? Or, do we have just another passing fancy? Some people see career education as just another figment of someone's imagination. Some say it is a dream that will have its "brainstorming era" and then fade into the past as did "progressive education," the "core curriculum," the "organic curriculum," and similar movements. Then it will give way to some other bright idea. Some say that the locked-in system of our college-oriented curriculum from the kindergarten through secondary education has become so closely tied to higher education's plan for a perpetual regenerating system that nothing short of a catastrophe is going to change it.

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Perhaps a more optimistic and positive outlook needs to be pursued. A fundamental approach should be attempted with the idea that the general public wants to support an educational system that is dedicated to the task of serving the needs of our dynamic and ever changing socioeconomic environment. If our leaders in government and education can conceptualize and properly demonstrate a sound, comprehensive educational system designed to support the attainment of the national goals of our democratic way of life--basic among these, "equality of educational opportunities" for all people--then there are reasonable expectations that it can be implemented with proper public understanding and support.

The general public seems to be asking for a change in our educational system that will be more relevant to the needs of everyone who has a significant role to play in the economy and in our social affairs. This is part of the reason for the growing interest and excitement surrounding the term "career education." The time seems to be at hand when we need to stop saying, "We are not ready to define it".or "We are not ready to design the structure that is needed to implement it." Educators can accomplish both of these tasks, and we should not let the "torch pass from our grasp." The basic educational needs of the people must be a continuing challenge of the leaders in education. Leaders in vocational education must be in the "mainstream" in providing this leadership.

Some Areas of Concern

There are many areas of concern regarding career education that need to be studied and researched. Some of the significant concerns that have been identified that should bring into focus other concerns that need attention are:

1. What is the philosophical foundation of education that must be understood and followed as our basic guide in implementing a sound career education program? This has reference to education as it relates to the individual's basic needs in our modern social and economic environment--an environment influenced by developments in science, technology, and expanding knowledge.

2. What are the concepts of career education that relate to the traditional concepts of education? What does the so-called "general educator" believe about career education? What does the so-called "vocational educator" believe about career education? What are the basic differences, if any, that need to be reconciled in order to accommodate career education as an integral part of a comprehensive educational system--one that extends from early childhood through adulthood?

3. What is an acceptable concept of a comprehensive system of education? Is it task-oriented and developed on the basis of behavioral or performance objectives and career-oriented goals? Is it an experimental process that is individualized in terms of the individual learner's needs, interests, and aptitudes? Is it a system designed to meet the needs of all educable persons extending from early childhood through the productive life of adults?

4. Who shall design, implement, and operate the comprehensive educational system at the federal, state, and local levels to meet realistic educational needs and goals? How will the existing traditional philosophy of education be reconciled with the emerging philosophy of career education with regard to administrative policies and practices, teacher education, teaching methods, curriculum development, planning and scheduling educational experiences, and course requirements?

5. Are there adequate understandings and commitments on the part of the top leaders in government and education regarding career education? This is essential for its proper implementation as an integral part of the educational system. Unless the top leaders believe in and are committed to the concept of career education, to the extent that they want it to become an integral part of a comprehensive educational system, it will never happen. They must be led to believe that it is philosophically sound in terms of their understanding of the foundations of education. If this can be accomplished, there is a strong likelihood that career education can be properly implemented. If career education is going to be properly accepted and built into the total

educational system, it must have strong support from the top leaders in the executive and legislative branches of government, educational administration, and the general public.

6. Will the financial support needed for the implementation of career education be broadly based? The financial support of career education cannot be limited to only one segment of education if it is to be successfully integrated into the total educational system. It must relate to and support the development of career education at all levels of the educational system. Adequate financial support is especially important in developing the proper concepts, understandings, and commitments during the stages of piloting and demonstrating career education models, and adapting them to existing systems of education. This is vital if the people are to be convinced that career education has relevance to their educational needs as they strive to prepare themselves for their proper role in the "world of work" and as responsible citizens in society.

7. How can the required curriculum reorientation and redirection to accommodate career education be best achieved? The curriculum must be redesigned from early childhood throughout adult life--conceptually and physically--to accommodate the notion that career education is a lifelong educational process, experiential in nature, intended to attain meaningful life-fulfilling career objectives.

8. How can a reorientation of education professional development programs be accomplished to serve the requirements of career education? There are certain musts if the competencies required to produce a relevant system of career education are to be developed. The core of the system must be what educators now strongly believe to be that of the "life career development" process.

9. How can the required cooperation and mutual support of the educational community be assured? There must be wholehearted cooperation from all elements of education in an effort to evolve a single comprehensive system of education--one that deserves the admiration and support of the general public.

10. How can we be assured that special and specific occupational preparation will be adequately included in the evolving patterns of career education? If the total concept of career education is to be realized, then special and specific occupational education must be

appropriately conceptualized as a significant part of the overall plan. These components must be properly built into the total educational system and adequately financed to serve the expanding interests and needs of the people to be served.

Considerations for Career Education Planning

This study group raised many questions and offered many suggestions that are worthy of serious consideration in organizing for the effective planning of career education programs. The following reactions evolved from the group:

1. How can we bring about desirable educational change? What are the fundamental strategies involved? How should they be employed to implement career education?

2. What would be an appropriate plan for implementing career education?

3. Can educators working alone be expected to bring about the desired changes in our educational system?

4. Education is a process designed to bring about desirable changes in human behavior. Who must be involved in designing the process if, in fact, it needs to be reoriented to assure the proper development of career education?

5. Is education solely for education's sake? Or, does it have a more basic significance with reference to life career development?

6. In considering career education, what are the essential components? Should they be developed as a part of the total educational system? Can this be done through voluntary involvement or must it be on a mandatory basis?

7. How do we adequately deal with tradition in bringing about desirable changes in the educational system--changes which will be more relevant to the needs, capabilities, and expectations of those to be served?

8. Where must the leadership be centered to bring together the forces required to evolve the proper developments in education?

9. Is categorical aid an asset or a constraint to the development of career education?

10. What guidelines are needed to develop and implement career education? Who should develop such guidelines? Who should implement them?

11. What organizational structure is needed to implement career education at the federal, state, and local levels?

12. Where are the stumbling blocks that must be clearly identified, studied, and researched if the proper development of career education is to become a reality in the local school systems throughout the country?

13. Is career education intended to be *just another course* added to the proliferation of courses now offered in the educational system or is it intended to be something more realistic and dynamic?

14. How may we evolve the cooperation and coordination that is essential to bring about the desired unity in diversity that exists in education and eliminate the undesirable and unnecessary divergent points of view?

15. Communication among interested and concerned individuals and groups is essential for the proper conceptualization, development, and implementation of career education. To make this a reality, the questions that need to be answered regarding responsibility and involvement are: Who? What? When? Where? How? How much?

16. If we are to assure the development of a sound and relevant career education program, there must be a sense of accountability. Are the people now involved in the process carefully and thoroughly thinking through their ideas, plans, and strategies?

17. Are the people now employed to develop and implement exemplary career education programs provided adequate opportunities for proper orientation and in-service training to assure reasonable possibilities for successful results?

18. Are appropriate guidelines being developed to assure adequate *process* and *product* evaluation of career education pilot programs?

19. Relevance is a continuing question now being asked by the general public. To what extent should the educational leadership be listening to the general public in developing the educational system?

20. It is an accepted fact that we have limited financial and educational resources. What is the best approach to maximize benefits from these limited resources?

21. In education we must continually deal with the mechanics of certification, accreditation, Carnegie Units, etc. Are these assets or liabilities in the development of career education?

22. The question of "economies of scale" has been raised regarding the development of an efficient and economical education system. What constitutes a logical educational unit for the implementation of an effective program of "life career development"?

23. Which is more desirable: (1) to conceptualize a total state pattern for career education, or (2) to have each local educational agency evolve its own system?

24. What is a logical plan for developing and implementing a career education pilot or exemplary program?

25. Is fragmentation of vocational education into occupational fields and special service areas an asset or a hindrance to the development of career education?

26. What "togetherness" in vocational education needs to be promoted to give it a proper sense of direction with regard to the development of career education?

27. How can we get proper articulation between the different levels of education in evolving a continuing process of "life career development" through career education?

Resources Needed to Solve the Problem

If we accept the problem statement, "How shall we implement career education as an integral part of a total comprehensive system of education?", then the concerns that have been expressed clearly indicate the resources that are needed to solve it. They also give some indications as to what must be done with the available resources if a satisfactory solution can be expected to evolve.

Basically, the resources available to educational planners as they strive to formulate reasonable alternatives for the solution of existing educational problems are: (1) human resources, (2) material resources, and (3) strategies for educational change.

Human Resources

Perhaps human resources is the most significant element that must be properly assessed and managed in order to get the problem solved. The people involved have a profound influence on the total situation. They control the total decision-making process with regard to the availability and use of the other resources needed. The people are also the prime benefactors of the results that may accrue from the educational process that would be implemented. It has been said: "What man can conceive in his mind, man can do." The major controlling factors are desire and determination to get it done. If we can accept the assumptions that the people in this country want a viable comprehensive educational system, one that is relevant to the needs, aspirations, and capabilities of all the people, and one that will prepare people for responsible roles in the "world of work" and in other social affairs, and one where "career education" is an integral part of that system, then the following things must be resolved with respect to the proper use of our human resources in the development of such a system:

1. A philosophical agreement on what constitutes the fundamental principles upon which a sound educational system can be established and maintained. Such a system must help each individual become a participating, contributing, and self-fulfilling member of society in terms of his aspirations and capabilities.

2. A clear definition of what constitutes a "comprehensive educational system" and "career education." Definitions of these concepts must be formulated as guides for program development. They must embrace the generally accepted fundamental principles of education and be understood and accepted by the "change agents" in our educational system. This is essential at the federal, state, and local levels.

3. Leaders at all levels who can bring about the proper implementation of "career education" as an integral part of a comprehensive system of education. They must have a functional understanding and acceptance of the meaning of "career education" if it is to become a reality.

4. A strong and sustained commitment by the leaders at the federal, state, and local levels indicating that they will be responsive, persistent, and accountable in evolving a comprehensive system of education must be a reality. They need to indicate that they will emphasize the proper development of knowledge, understandings, attitudes, and skills required for the performance of appropriate roles by all individuals in our social and economic affairs.

5. A well organized "plan of action" that has evolved through a broad-based involvement of the interested and concerned citizens who will be affected by the educational system that they are expected to support.

6. A functional "organization and management structure" based on behavioral or performance objectives and related to career oriented goals. The structure must have the roles and responsibilities of everyone involved clearly defined if the program is to be effective at all levels of operation.

7. A continuing communication system designed to keep those actively involved and the general public properly informed about what is going on and what is being accomplished. This is vital to assure sustained interest, commitment, cooperation, coordination, and participation in the implementation of such a program.

8. A strong commitment from the interested and concerned leaders and the lay public to assure the continued support required to implement the plan of action. This commitment must be in the form of financial support and the employment of competent people to get the work accomplished.

Material Resources

Such resources include financial support, facilities, program resources, governing laws, rules, and regulations, and basic guidelines for program development. These resources will be largely controlled by the concern and desires of the people who will be in positions of influence regarding the development of this program. They need to have a clear assessment of the "material resource" requirements for implementing "career education." These requirements must be made explicit through proper communication linkages and continuous dialogue. Essential knowledge and understanding of the situation and what must be provided in the way of material resources is also imperative.

In this area of "career education," these concerns and suggestions have been expressed:

1. If "career education" should logically be developed as an integral part of a comprehensive educational system, then the financial support for its development and implementation should come from all sources that are now supporting the existing system. This should be an established policy at the federal, state, and local levels. Perhaps considerable new money should be made

available for research, special studies, exemplary projects, and developmental programs to test alternative concepts and plans that have been proposed in the implementation of a viable system. This should be considered as "seed money" to generate interest, involvement, and exemplary activities. Eventually, it may be assumed that much of the existing system will become reoriented and redirected. This should result in a shift in the allocation of financial resources now available to support the present educational system.

2. There must be intensive and extensive changes in preservice and in-service teacher education programs to prepare people for new roles and responsibilities pertaining to "career education." The Education Professions Development Program should be an effective means of dealing with this problem.

3. Curriculum orientation and development must undergo some radical changes if the educational system is to become more relevant to the needs of the people with respect to their "life career development." The total curriculum pattern from the beginning of early childhood education through adult education needs to be clearly conceptualized. Then the curriculum objectives, content, and modules need to be developed, tested, demonstrated, and adopted for each level of the accepted curriculum pattern.

4. Appropriate instructional materials and other media need to be developed along with the curriculum development process to reinforce the effectiveness of the teaching-learning process.

5. Guidance services and appropriate information pertaining to personal needs and occupational interests should be made available to all individuals who have educational concerns, problems, or aspirations and may be enrolled in an educational program at any level from early childhood through adulthood.

6. Process and product evaluation should be a continuing part of the total educational effort. The major objective should be to assure relevance and accountability to the total comprehensive educational system.

Strategies for Solving the Problems

Basically, the strategies for educational change should be organized as a systematic and continuing process that is linked to a sound decision-making or management by objectives system.

This process has been formalized and described in various ways. It may be explained in the following steps: (1) assessment of the situation to determine the educational needs; (2) establishment of appropriate educational goals and measurable objectives; (3) collection of relevant and valid information pertaining to the expressed needs that may be used to establish alternative solutions; (4) establishment of acceptable alternative solutions to the problem(s) identified in attempting to meet needs; (5) decision-making based on the acceptable alternatives and their possible consequences; (6) program development on the basis of the alternative(s) selected; (7) program evaluation to determine the soundness and effectiveness of the decisions made, the process followed, and the quality of the product secured; and (8) program adjustment based on the evaluation results.

If career education is to become properly implemented in the total educational system, there are several important steps that must be taken. These steps may be appropriate at the federal, state, and local levels.

1. An educational plan must be developed that includes an orderly sequence of the actions to be taken or the things to be accomplished. The strategies should be planned in terms of a logical time schedule.

    A. Identify the individuals and groups that should be actively involved.

    B. Develop an organizational structure that clearly establishes the roles, responsibilities, and interrelationships of the individuals and groups involved.

    C. Prepare various strategies to develop proper understandings of the career education concepts that are to be conveyed to the individuals and groups involved.

    D. Determine the procedures to be followed in establishing the acceptable goals and objectives of career education.

2. The present educational system must be assessed to determine the changes that are needed to attain the goals and objectives of career education.

    A. Make an inventory of the resources that are available to implement career education.

        (1) Assess the human resources in terms of their present competencies, interests, aptitudes, and needs for in-service training.

        (2) Assess the material resources in terms of what is readily available, what is potentially available, what is needed, and what changes would be required.

    B. Organize the available resources and develop the career education program that is deemed appropriate for the situation.

3. Move to implement a comprehensive educational system with career education as an integral part.

    A. Include in career education these essential components:

        (1) Awareness of self and the relation of self to the environment

        (2) Orientation and exploration of the occupational structure with the intended purpose of arriving at an occupational preference

        (3) Preparation in a specific occupational family or cluster

        (4) Guidance and counseling throughout the educational process

        (5) Student placement and follow up that will lead to the successful attainment of desired career objectives.

    B. Use an appropriate advisory group or groups made up of representatives from interested and concerned agencies, organizations, institutions, and individuals.

    C. Evaluate the career education system--both the process and product--to determine how well it is functioning. Use the evaluation results to improve the system.

4. Continued success of career education will depend on effective program planning, improvement, maintenance, and evaluation. This will require the continued involvement of competent people who are willing to use their talents, initiative, and influence to make it work. The things that will determine the success of such a program will be sustained interest, flexibility in the change process, and commitment to the program.

Also important in reorienting and redirecting the present educational system toward the concept of career education is deciding what strategies will be employed to develop and implement the philosophy, purpose, goals, and objectives of career education. These elements must serve as the basis for program planning, development, and implementation. Some suggested strategies concern the:

1. Role of the State Department of Education -- The state department of education should be motivated to assume the leadership role in stimulating statewide interest in career education; provide technical assistance to local educational agencies in program planning, development, and implementation; assume the leadership role in developing proper understanding and support of career education by the state board of education, the governor of the state, the state legislature, other agencies of state government, and institutions of higher education. It should assume the leadership role in establishing a statewide organizational structure and management system that will evolve proper cooperation, coordination, and total involvement in the development of an ongoing program of career education.

2. Use of Task Forces -- Task forces should be made up of people representing academic and vocational education interests and those of the general public. They may be used to develop the necessary strategies for implementing career education.

    A. Perhaps the superintendent of public instruction and his cabinet should serve as the task force that reviews and recommends suggested policies that will need the approval of the state board of education or its recommendation to the governor and/or state legislature for future action.

    B. Perhaps the superintendent of public instruction should appoint a career education technical committee within the state department of education that will be given the responsibility to inform interested individuals and groups throughout the state of recent developments in career education, including policies, financial support, exemplary programs, and research findings. It would provide technical assistance in program development, preparing proposals for special funding, reviewing proposals submitted for special financial support, and making recommendations to the approval authorities. It would be given the responsibility to see that funded projects are properly monitored.

3. Use of Workshops and/or Conferences -- Workshops and/or conferences that are well planned, of suitable duration, and designed for the appropriate audiences could be a useful procedure to get a sound philosophy of career education formulated and a clear definition of career education properly stated and accepted. This plan could also be an effective means of establishing appropriate goals, objectives, and procedures for implementing career education. Persons representing both academic and vocational interests should be involved in such activities.

4. Use of Special Consultants -- Special consultants with the desired competencies may be employed to assist in the development of a sound philosophy, goals, objectives, and strategies for implementing career education. Such consultants should be able to relate to both the academic and vocational education interests in getting these things accomplished.

5. Other Possible Strategies -- There are many other strategies being tested throughout the country that have merit. Some of them follow:

   A. Employment of a career education director in the state department of education to provide state-level leadership

   B. Employment of a career education coordinator at institutions of higher education

   C. Appointment of a career education committee at the local educational agency level that relates to and coordinates for the committee subcommittees that work on the different career education components--awareness, orientation, preparation, guidance, placement, and follow-up.

6. Funding Special Career Education Projects -- Practically every state is using federal, state, and local funds to support research and special studies and pilot, exemplary, and developmental projects pertaining to career education. Some of these funds are being used for curriculum development activities and in-service training programs for the orientation and development of professional personnel.

The educational leaders in each state have the responsibility to acquire the "know how" and required resources to develop a sound and relevant comprehensive educational system that will enable the people to secure appropriate "life career development." An effective program of "career education" included in such an educational system will contribute to the fulfillment of this responsibility.

Strategies for Facilitating Development of Post-Secondary Programs

By Leonard Kunzman*

The chairman had prepared five questions for the group to use in getting at the assigned problem. The first question on which the group worked was, "What people and agencies must be involved in planning program development strategies for post-secondary programs?" It was the consensus that because of the variety of agencies to be involved in career education, the governor must be personally involved if the concept is going to fly. Others who must be involved in developing strategy are: (1) the chief state school officer and his staff; (2) regents for higher education; (3) state advisory councils; (4) the governor's manpower planning council; (5) the new Sec. 1202 Commission; (6) representatives of business and industry; (7) the lay public; (8) parents and boards; (9) administrators; and (10) instructors and students of community colleges and private schools. Involvement also should be obtained from labor groups, government agencies, and community action agencies. Undoubtedly, each department of education will find others to add in their particular state and situation.

Question No. 2 looked at the planning and development role of secondary and post-secondary administrators. Before they became involved in discussing this question, members accepted the fact that the product user has an important role in educational planning and certainly in career education planning.

The secondary and post-secondary administrators must exemplify cooperation and articulation if career education is to work. They must make an active commitment to the concept of career education and go about setting goals and priorities to implement that commitment. They must provide leadership to educational boards in developing position papers on career education. Certainly, from the administrators must come the leadership for in-service programs for implementing the career education concept and for the overall program of personnel development.

There must be a focus on the fact that career education at the post-secondary level must be for all: the dropout, the person seeking occupational preparation, the adult looking for reeducation, and the student seeking something other than occupational preparation.

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The administrators must be concerned with across-the-board need assessments such as programs, personnel, facilities, finances, and evaluation for career education.

Question No. 3 dealt with "How should advisory committees be developed and used at the post-secondary level?" Here again the group agreed that "Career education and vocational education must not be considered as synonymous." The participants proposed that advisory committees should be established for each program. It was the consensus of all that utilizing career education advisory committees in no way detracts from occupational education advisory committees.

Advisory committees for career education should be drawn from the total community as career education at the post-secondary level involves 100 percent of the post-secondary people. These advisory committees should be involved in needs assessment, articulation planning, facilities planning, identifying and providing work experience stations, and career education evaluation.

Question No. 4 was, "How should evaluation be designed and implemented as an integral part of the planning and development process?" Participants agreed that to design evaluation the agency must start with a needs assessment and an initial planning statement, set measurable program objectives, and provide for regular and complete documentation of progress and activities. Adequate follow-up must be provided and third-party evaluation teams must be used consisting of representatives of business, industry, labor, and education.

During the discussion it was brought out that the recently released Carnegie report calling for achieving a bachelor's degree in three years had created fear among community college administrators that one year of their programs might be eliminated if this becomes a reality.

The last question, No. 5, was, "How should specific career education responsibilities be allocated to specific institutions?" The group felt that this was a difficult question and that it really related to the occupational preparation phase of post-secondary career education. Certainly each institution cannot offer every skill program, and some programs are going to have to be allocated to specific institutions based on manpower needs.

section three:

Organizational and Institutional Support for Career Education

Career Education and the AVA

By Lowell A. Burkett*

Change is the nature of things and thus inevitable. Mankind is now moving through an accelerated period of social and technological change unparalleled in history. These changes concern us in education because the burden of preparation for change rests with us. H. G. Wells once said, "Human history becomes a race between education and catastrophe." Winning the race, to most of us as human beings, becomes paramount. If education is one of the contestants, it must change at a very rapid rate to win the race. There is some evidence, however, that education is not changing rapidly enough, or is not fulfilling its function for the entire population. School dropouts, student unrest, and youth unemployment all testify to the fact that the changes needed are much more numerous. We as educators must face these problems head-on.

As you know, history is replete with transient movements intended to bring change and reality to education. Such concepts as "progressive education" and "life adjustment education" were intended to couple learning with life. Each of these movements was an attempt to provide opportunities for individuals within our states, but each movement was grossly misunderstood and lacked the support of the educational profession.

The House of Delegates of the American Vocational Association approved a resolution in 1966 that introduced another movement to make a major change in public education. For the lack of a name, it was merely called an "expansion of vocational education." Portions of this resolution emphasized the following:

The WHEREAS' stated that: Occupational destinies are shaped over a long period, beginning at birth and continuing until retirement, and also that appropriate education for occupational choice, orientation for the world of work, occupational competence, and advancement should be a part of the total school education of all, and that proper early education is important to vocational education.

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Following many such WHEREAS', the AVA resolved to join with those responsible for the elementary, secondary, and post-secondary schools in developing programs of occupational education appropriate for all students and participated in by all students in elementary schools, junior and senior high schools, and post-high school institutions.

And in addition, the AVA subscribed to some criteria for these programs:

1. Programs in the practical arts, adapted to all students, should be expanded and extended downward into the early grades.

2. All students should receive realistic occupational information and guidance, adapted to individual needs, and provided at appropriate times in their school careers. Parents should be aided in guiding their school age sons and daughters in making realistic occupational choices and in selecting educational programs related to their choices.

3. All professional personnel in a school system who have a relationship to occupational choice, competence, and advancement should be involved in planning programs of occupational education.

4. Schools should provide supervised work experiences.

5. Schools should provide placement services when the students are ready to enter the labor market.

The AVA further resolved that additional funds to implement this expanded and improved occupational development program be sought from local, state, and national sources; that personnel be prepared to conduct the expanded programs; and that administrative arrangement, curriculum plans, and teaching aids be developed which reflect the needs and interests of young and adult students.

Following this, the AVA took a leadership role in introducing the concepts expressed in this resolution by urging the Congress to enact Part D, Exemplary Programs, of the Vocational Education Amendments of 1968. Funds appropriated under this part have been used to implement programs that, in general, apply the criteria and principles found in the resolution. Some school administrators have become enthusiastic about the results of many of the exemplary programs, and an increasing acceptance of these programs can be seen on the part of the general public.

United States Commissioner of Education Sidney P. Marland, Jr., has strongly endorsed this evolving concept of education and has chosen to call it career education. He generally hesitates to define the educational program he conceives under this name, stating that it must evolve. There can be no quarrel with him about the term of career education, but there should be great concern about the concepts it embodies and about the understanding and acceptance of these concepts. Perhaps it is a matter of communication or perhaps a matter of self-interest.

So that a greater understanding of career education could be diffused throughout the vocational education community and also to aid in the process of developing the concepts of career education, the AVA again went to the drawing board in December 1971. A special task force was called to concentrate on career education. Issues were identified and roles suggested. Following this, another resolution by the AVA House of Delegates placed all vocational educators into the arena to become involved in these concepts called career education.

The task force on career education and the resolution of AVA passed last year in December 1971 reemphasized beliefs about educational programs and gave endorsement to the following:

1. Career education is a lifelong process that extends from early childhood through adulthood. We believe that attitudes toward work, knowledge about work, and ability to perform at work must be an integral part of education of all people at all age levels. In order to implement this, schools must be open to any individual at any time throughout his lifetime. Youth and adults should be permitted to enter or exit from the school at any time during the year. Grade levels, graduation, diplomas, and degrees may have to be eliminated if they serve as termination points rather than as an indication of achievement.

2. It is believed that career education is needed by and intended for all people and not for only the academically talented or those who have had favorable learning conditions, nor is it intended only for those to be trained for employment. Educational theory has recognized the variety of human endowment, but educational practice has persistently assumed and demanded uniformity and stereotyped programs. Individual differences will have to be recognized and dealt with in a systematic manner. A democratic society cannot long survive with elitism in education. Furthermore, all individuals have a right to the kind of education that serves their needs, talents, and desires.

3. We know that career education must be people-oriented rather than subject matter-oriented. The interests, talents, and needs of people must be the prime considerations of education.

4. I can now see that career education must be responsive to public demand for relevance and accountability just as we have been in vocational education. Many educators have isolated themselves too long from the public and have taken it upon themselves alone to chart the course for education. Public education has to be responsive to the society that financially supports it. The public is asking that education be relevant to its needs and that the results be measurable. Educators will have to call upon the public for advice and then respond to it affirmatively or negatively, giving the rationale for their decision.

5. We insist that career education recognize that all honest work and purposeful study are respectable. Remnants of a caste system of education linger in our culture, and schools have done little to eliminate it. Parents, as well as many educators, hold a belief that only the professions requiring a higher education degree are vocations to be sought, and all other vocations degrade one's worth in society. It is past time for people to recognize that purposeful study for any honest work is far more respectable than education that leads to unemployment and welfare. Work must satisfy the individual rather than the parent, the public, or the educator who advises the individual. There is no occupation that serves mankind that should not be taught in our educational system and that cannot be a respectable part of any instructional program.

Thus, as we evolve the concept, the logic for career education becomes clear; but its universal understanding and acceptance is not conspicuous. Perhaps it is because education has traditionally been slow to change. It is human nature to protect what man has and what he is because of the uncertainty of what change might do to him.

No one can or should claim that he has all the answers regarding career education. The concepts, methods, and approaches may be varied. Implementation is an extremely large and complex task; therefore, it becomes a great concern that career education is being identified in many places as vocational-technical education. We cannot be satisfied to simply change the name of vocational education to career education and in so doing add guidance, orientation, and awareness processes. Career education must remain a total concept for all individuals within every school system or it must be allowed to go the way of those movements before it, those movements that have passed into the shadows of unconcern.

The idea to structure the organization of the Bureau of Adult, Occupational Education within the U.S. Office of Education so that it can house all activities, personnel, and funding sources for the career education movement is indicative of the lack of understanding of career education. This should be of concern to all vocational educators. With support from vocational education as well as people in elementary, secondary, post-secondary, and higher education programs, career education can take its rightful place as a movement to improve the educational system of this country. Any person or group of people in an agency, advisory council, or institution who thinks that career education is only another name for vocational education, and that the total concepts of career education can be embodied within the funding or administrative structure of vocational education, must undoubtedly be in for a period of time when not only will the career education movement suffer, but the valuable vocational education programs that should be available to the people within all states and the nation will be hampered.

I cannot stress enough the fact that career education is a total concept of education for all people--cradle to the grave. This being true, vocational education must be a vital component and a component only. This component has to be kept strong, it has to be kept visible, but it cannot dominate the career education movement or the result could be a general disorientation of programs of vocational education and an eventual return to the segregation of education into academic and career or vocational education.

Relating this to the national level, there must be some agency at the national level that has the responsibility for diffusion of knowledge about career education. Logically, the U.S. Office of Education should be named the U.S. Office of Career Education. However, this office is always threatened by politics, change of leadership, and emphasis. Each new administration has its own direction and, although U.S. Commissioner Marland has given career education high priority, the question must be, how long will this be true? More important at the present time is the question of where the U.S. commissioner will lodge responsibility for career education. Perhaps it is a tribute to present understanding of the total concept of career education and belief in this, that currently proposals to place this function within the Bureau of Adult, Occupational Education are in evidence, and being seriously considered. Also perhaps it is indicative of something that a very meticulous effort was mounted to place the reins of this bureau in the hands of a deputy commissioner that would not be identified with vocational education.

The Congress of the United States is saying that our educational system must be changed and that an orientation toward the world of work, acceptance of the work ethic, and education and training for employment is a vital component of all educational programs. We in vocational education can do no less than seek to implement the intent of Congress. We must be a part; we cannot be the whole.

The American Vocational Association is continuing in its efforts to help develop career education. We have actively worked with the U.S. Office of Education in many ways, seeking to help all educators guide the development of the concepts. Presently, we are investigating the possibilities of legislative seminars to pursue adequate legislation for career education. This is to supplement the 1968 amendments and the higher education amendments that just passed. In addition, we are continually planning and holding program development conferences in the various subject matter areas--conferences designed to further develop the role of vocational education in career education. As a professional association, we feel there is no one single professional organization that is concerned with the total education program from the cradle to the grave. So we do not claim to do more for career education than to help it evolve. We do offer, however, to cooperate with many organizations to achieve a goal for all education.

We have identified some of the concepts of career education as seen by the AVA. Also, I have touched upon some of the concerns that may cause problems for all education. We need a united effort to guide this movement in the coming years and we need strong leadership from all vocational educators to assure the best possible solutions. We in vocational education have always looked to you in this room for that leadership. I look forward to the results of your success.

Vocational Education in Career Education : **A USOE View**

By Michael Russo*

The topic I will be discussing is the role of vocational education in career education as we view it from the U.S. Office of Education. I want to take this opportunity to weave in some of the work we are doing that we think will have a definite impact on the role of the Office of Education as it relates to career education.

I am not too sure that in the years to come career education may not change its terminology. I am convinced that the time is right and the need is here. It may turn out to be a different term, but I think the philosophy that is being generated and the methodology and all that we have for implementation is here to stay. As we start to analyze what we are doing, as we combine the actual knowledge with the research and the development that has come from it, we in vocational education will address ourselves to the broadly based needs of the student as well as the skill development phase that we have been noted for and the accomplishments we've very successfully completed over the years.

The dropout problems we are faced with are here and will continue to be here for many years and we have a mandate to cope with these problems. I am very concerned when I see approximately one-third of our educational dollars each year being utilized to cope with the dropout problem in one way or the other. In other words, we have about a $7 billion investment in the student who goes through grade 7 or grade 8 and drops out, and approximately a $12 billion investment in the student who goes through grade 12 without a marketable skill. And all we give that student upon completion, in my estimation, is a "certificate of endurance." They survived the system. Then we have a group that will supposedly go on to higher education and will complete successfully. We have approximately another $12 billion involved in these students. Approximately one-third of the dollars that go into education go down those three avenues, which are, I think, to a large degree wasted. We are realizing the need to cope with the problem whether we call it career education or whether we call it something else.

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In the years to come, the path we are on is the one on which we must continue. We must continue to enlarge and expand our offerings in order to give those students a greater advantage, more options, greater understanding, and a chance to make very valid decisions as to what they would like to achieve in life.

Quibbling about terminology is not important at all. We shouldn't quibble about whether or not we have fifteen occupational areas. When these fifteen occupational areas were arrived at, it was a decision made in our office based on some very rapid work. We see different units being developed and sub-clusters being added. What we are concerned with is the concept of philosophy that we are trying to promote in terms of the broadness that we think our students need in order to go out and become productive citizens with a self-satisfaction that has the same magnitude as skilled training.

As we view it, career education means kindergarten-adulthood. I think vocational-technical education is buying the portion that we can deliver under the whole umbrella of career education. At this time, we do not have the manpower or the dollars to generate all that we should for kindergarten-adulthood. Let us take the expertise in those areas that we have been noted for over the years and let us continue to develop the broader concepts of career education. As we do a good job in those areas then let us start going down from one end of the scale and up on the other as rapidly as we possibly can.

The reason I say this very strongly is that we do have a problem in terms of funding, and we do have a problem in terms of meeting the needs of our people according to the acts under which we operate. Is it better to stop the flow or is it better to try to handle the flow that is in the pool of unemployment at the present time? This is a very hard question and I think that we should address ourselves to it. Perhaps with the implementation of act 92-318, when it finally comes to fruition so that we can actually start operating with it, we will have a little more latitude and a little more flexibility to cope with the flow.

You have heard the comments about the new act and its relationship to career education. Some people think that it's an act that is very difficult to administer. I recall when we got the 1963 act and the 1968 amendments we thought the same thing for the simple reason that it takes a little time for us to work through these acts to find out what the intent of Congress was. We have to work very diligently to get the rules and regulations out as rapidly as possible.

In terms of our position in career education, from the office viewpoint, we often hear about many other educational units throughout the government and throughout the land as being the "movers and shakers." I take great exception to that because the movers and shakers for the last two years or so in the promotion of career education have been the vocational-technical people. It has been natural for us in vocational-technical education to move into this area. However, I would caution all of you as you promote this, as you talk about it, as you become the leaders in this, please don't use the expression that we "already do it" even though we may do so. Because immediately you are labeled. There is a phrase that's been used once or twice in and around our office and it has come to our attention. Everyone is very careful about the phrase "don't surface too much." We are going to have to surface because, I think, we in vocational education are the vehicle that is going to have to be looked upon in order to move the career education thrust.

Where do we go from here in terms of what we've done already? To move career education, and to help all of our educational colleagues implement this, we have to create understanding about the educational and sound gap that has been created in all of our people throughout the years. You are the "movers and the shakers." And I say this to all of us in vocational education: "I hope that we are in vocational education by choice and not by chance." And I trust that we are not the opportunists that I see in other areas. The new act is saying to us very clearly that we must coordinate and work more closely with all segments of education. That was the intent of Congress and it is going to be very difficult for some of us. It is going to be very hard for us to sit down with some people who perhaps we were not associating with as well as we should have in the past, who perhaps have a difference of philosophy and emphasis.

As we move forward in the general thrust of career education, let us be sure that we are trying to develop a broader base, a broader core of knowledge. By all means let us push in that direction. Let us make sure that every student who enters our program is given as many options as we can possibly give him. But there is one thing that I think we must maintain, and it is what we have stood for for years. We must not water down the skill development phase to a degree that we do an injustice to the students we handle. We must maintain that degree of skill development for which we have been noted. But also we must find ways of taking a good hard look at what we are doing and make the necessary modifications. Make the modifications change our program. We must broaden the scope of the programs, we must take a look in some instances at the time sequences in which we offer these programs. I think these are very hard subjects to approach. Do we need the same number of hours for each and every program, can we make modifications, or can we use the same hours and broaden the program? Do we have to have everybody start the program at the same time and exit at the same time? Can we accommodate the needs of people as individuals far more than we have in the past?

Another important question is how do we articulate from grade to grade so that we can avoid the pitfalls or gaps. We must avoid the overlapping and duplication that many of us have experienced, not only as teachers but as students as we have gone through the subjects. How do we develop a clearer-cut line of articulation between each grade level so that the student will constantly be challenged and won't have to do too many things repetitively? In vocational education we have to do a certain amount of repetitive operations in order to develop the skill. But have we analyzed these sufficiently to say perhaps we don't need as much? We should add something to the student's background to the "bag" that he is going to take out with him in terms of skills and knowledge. These are the things we must be looking at very closely.

Throughout the entire theme of career education, there must be a common thread of guidance counseling and placement. The people who do the guidance and counseling must be just as responsible for the placement of every student in that school whether he or she is going on to higher institutions of learning or he or she is going out into the world of work. The same degree of support must be given to every student. In a day and age when dollars are very tight at the local levels and we are cutting back in many areas, it is very disturbing to get responses in from many areas that say they had to cut back on guidance and counseling. It is absolutely unbelievable that this would be the area where they would cut back.

Our enrollments are increasing at all levels of education. This means that we have to become far better teachers than we have been in the past. But the guidance and counseling factor is one with which we must all become involved. We must be knowledgeable about terminology. We are trying to generate different types of literature to put in the hands of all of the people throughout the country so that when you meet with the guidance people, and as you hear them discuss the problems, you in turn can assist them in helping solve your particular problem. I am very much concerned when guidance people stop by the office to visit and ask, can you give us some indication of the type of test we should give to the people in vocational-technical education? I am a little concerned with the fact that they talk about testing our people and that they are asking us what they should be doing. They should be the specialists and experts in this field. They should be assisting us to be a little more knowledgeable. But as I keep talking to these people I find that we must approach the problem mutually. We are going to have to become more knowledgeable. I don't know of a shop teacher or lab teacher related to vocational-technical education and worth his salt who in my estimation hasn't become to a degree a guidance counselor and a placement officer. If we have to become more sophisticated, then we have to know a little more of what they are saying and doing in those fields. We have to learn to communicate with them.

As I look at career education and the implications as far as the Office of Education is concerned, I also throw a word of caution out to all the people involved. This word of caution is based on the reorganization and restructuring that I see going on in state departments. I am concerned when I find people throughout the states who don't quite understand what is meant by career education. Career education never was intended to be another name for vocational education. I am very concerned when I see the proliferation and the separation of our people in vocational units in the state departments, when I see units fragmented in such a way that there is absolutely no sufficient support in order to move any phase of the program because we are trying to be a little of everything to everyone and we end up doing very little for anyone. I am concerned how state departments are restructuring and in our office we're concerned in terms of how we are restructuring. We are wrestling with this, constantly regrouping, and now we are going through the seventh restructure in the last ten years. As we go through this, the thing that constantly gives us some problems is how to maintain the identity with the specific areas that we're trying to develop throughout the country. As we see our role, we have to become far more involved and careful as to how we try to be a little of everything to everyone. We have to make sure that we have the expertise as we meet with these people to truly assist them to overcome these specific problems.

Some people have been calling the Office of Education to say that up to about two months ago, they saw a terrific momentum in the office on career education but that in the last few months they haven't heard too much. We have never let down one bit in our vocational division in the bureau in terms of our dedication, of our movement, of vocational-technical education, of agricultural education, and of manpower training as it relates to career education. We have been pushing and moving as rapidly as possible. We have leadership that is dedicated to it in our own bureau and giving us all the assistance possible.

Sometime next April there will be a very large, nationwide approach to career education by the commissioner on the live circuit arrangement in ten areas of the country simultaneously, with approximately 1,500 people in each of these meetings. This is being developed now and will be a definite push for career education to try to get to the very top-level people so they will understand what their role is.

We are moving forward in the areas of curriculum development. We are moving forth in terms of our past Part D and C research and all of our research. A master plan is being developed that will set up certain parameters that we know we must work within and that will explain what we can possibly do within those parameters. We must keep the momentum going; the students need this. We must make the programs relative to their needs. And we must make the necessary changes.

One of the thrusts from the office will be to keep moving forward in the development of the curriculum that is sorely needed.

Congress is saying to us, "Where is it being done?" "What are we getting for our money?" It is not satisfied with our saying that we can show a percentage increase in this area or that area. They want to know where is it going on, where is the school, who are the people to contact, and where can we see it? The accountability factor is a very important thing today. In order to try to cope with the accountability factor, we still need a direct relationship between how far and how fast and effectively we can move in career education.

What are we trying to do here? And why do I bring this up at a time when we are discussing career education? I mentioned planning and accountability, both of which will have a very important impact on your state plans. The state plan was redesigned this year so that it would become a planning document. We are concerned with the way some of the state plans have developed in terms of the actual practicality of achieving the levels that they claim they're going to achieve. People are looking very carefully at these state plans. The state plans should be operational plans that can be put into operation. We are talking about going to the states, providing that the states request this, with what we call a state self-assessment document. Even if we don't visit your state, the self-assessment document will give you some indication of what Congress is asking. Have each individual staff member fill out the document, follow through and find out what your rating looks like. Look at how you've graded yourself and then compare your rating with what you've said in your state plan.

If we don't pull together as a team and stop this business of having some of our people going separate directions rather than pulling all together, we will be divided and conquered. We have one constant everyday battle to defend to improve our positions. We must constantly prove ourselves and in order to do that we are going to have to be able to stand up in terms of accountability and this will, in turn, assist us in developing a more realistic plan, a plan that will be operational, meaningful, and will have impact.

There are certain sections in your state plan that we'll be looking at closely so the team that visits your state will be extremely knowledgeable. That visitation will not be held unless it is requested by the state and the regional offices. In other words we will not impose ourselves on any state. It is simply to show Congress that we are very well aware of what its questions are. We also are trying to show the Congress that we are consciously striving to improve our program. Although we have limited funds, we have to show we are making the necessary adjustments, changes, and whatever else it takes in order to get the most for the dollar to make those programs relevant to the needs of our students and adults.

The third document will be a support document and will be in the hands of the people who are coming in to visit with you. You'll do your own self-assessment. We'll review it and we'll become extremely knowledgeable with your state plan. The team that comes in will be well-versed on what your state plan calls for, and the members will also be well-versed on your labor market requirements. If you say that it is excellent, they will sit down with you to find out why you rated it excellent because we would like to impart that knowledge to other states. If you have found the vehicle that can help you move your program in that specific area and you're doing an excellent job, we should know that and transfer the information to others. If you feel that in one area you're not as good, perhaps we can assist you from some other information we have gathered elsewhere to help you overcome this problem. These documents and your self-analysis will give you some leverage to show to other people who may have some impact in terms of staffing, in terms of change, and in terms perhaps of the monetary needs that you feel you need. Self-assessment would help. We've done this in conjunction with many people, we've done this for years in many areas and we realize questions have to be changed but we see a terrific impact of this particular thing on the development of career education.

Career education requires a flexibility such as we've never seen before. But with flexibility comes a tighter control on how you do your planning. You must be extremely clever in the method of developing your plans in order to be able to utilize limited budget and people and in order to expand your program in terms of needs of the people. Bear in mind that not only do we have a population problem facing us, but when we think of the twenty-twenty-four percent of the population we're presently serving in comparison to the turn-around, we'd like to have as close to eighty percent as possible. Within the framework of limited dollars, your planning must be extremely accurate and you must develop a planning component not only at the state level but a type of planning component that will permeate down through the local level. The reason is that if it is not a combined effort, your planning document will not stand up. And there's nothing more disappointing than to have people take a look at your planning document and find that you couldn't come anywhere near the goals and then have to explain why you were not able to meet them.

How realistic is your planning? I hope we've overcome the type of planning that I encountered at one state director's meeting. A state director said, "Do you mind if we present you with a state plan document that will meet the federal requirements and then we just put it on the shelf and run our own?" If we are doing it this way, it is a terrific waste of man hours and time. That state plan should be your operational document and your planning document should be part of it. I hope that you don't waste man hours developing something just to clear the regulation and then shelve it and come out with some hidden plan and say that this is actually what can be done.

We have been doing a great deal of forecasting. Recently we went through one state plan over a four-year period, and we actually found that according to the mix-up in the figures they had more students in vocational education than they had going through the same comparable grades in the total state system. We also looked at how the plan related to the construction of area schools. They took construction facilities, they estimated how many work stations they had, they put this in terms of number of students, and then they cranked in what they thought they were handling in the way of adults. When they got all through with this, we found that in one statement they said there was a terrific shortage and they must continue to construct facilities. On another page it showed that they had literally thousands of square footage of space that were not being used. The reason for this is that in their planning they estimated a certain number of students in classes and they never reached that number. We pointed out to them that this actually would show that they had over constructed.

We are concerned about planning and accountability, very much so as they relate to the concept of career education. We urge you to take a good hard look at your problems. We urge you to look at every single one of your programs and see how you can make the change, how it relates to different people of different social status, how it relates to urban, rural, and inner-city people, how it relates to the disadvantaged, the handicapped, etc. How are we molding these into our total concept? How are we meeting their needs? How are we modifying the programs so that we almost become experts in individualized instruction?

Now to further discuss the new act and its implications for career education. I said earlier that I think in the new act Congress is saying to us, you people who are responsible for grades kindergarten-adulthood have to get together and come up with a method of meeting the needs of as many people as possible. You better combine your forces. You have to eliminate some of the barriers that exist between secondary, post-secondary, and so on. We have to come up with a program that will meet the needs of the people, a truly comprehensive program. In the process of developing the rules and regulations for the new act we are running into many problems. The rules and regulations are constantly being changed. As the legal interpretation becomes more involved and as we meet with people on the hill, we get a different concept of what the Congress meant, and we make the adjustment.

Volunteer firemen are eligible for educational programs. We have been through a great many programs of this type, but now we have to move into it very rapidly and very strongly. And we are developing rules and regulations in terms of how we manipulate these programs. Industrial arts is definitely mentioned in the law that states that the industrial arts assess is applicable and it shows a transition period or articulation into vocational-technical. We have to work with industrial arts. We have to develop an understanding as to what our specific rules are. We have to knock down some of those barriers that have existed between us. The law said we will but, besides that, the industrial arts people have a very specific part of a program that would be very beneficial to our students. Now how do we work together? We met with industrial arts people and drew up rules and regulations in draft form. Every industrial arts program will not be eligible. We urge the industrial arts people not to lose their identity, but, by the same token, how do we collectively take advantage of the expertise of both in order to move forward in the general theme of career education?

Sections 101 and 1056 of Title X, community colleges and vocational education, deal specifically with different phases of state commissions. You should take a good hard look at what the role of the commission is. To a degree, this will have to be a problem solved state by state, but it will have a definite impact on programs. It could have an impact on your total mode of planning.

No one has a definite clear-cut idea on where career education is going. We don't have a definite blueprint. No one has. But I challenge all of us as educators. There is no such thing as a firm blueprint cast in bronze or concrete for educators and there never should be. If we teach our youngsters and our adults according to the needs and changes in technology and according to what they as individuals feel they need in order to have the program relevant to them, then we have to be in a constant state of flux. We cannot take one permanent blueprint and say, this is it.

I urge you to become very familiar with Public Law 92-318 and particularly section 10-B. And even though I say particularly section 10-B, I urge you to read all of the act for the simple reason that it is an overlapping and duplication requirement in terms of working with each other. You have to know this, you have to understand it, and as you become more knowledgeable, I'm sure that some of these artificial barriers will be overcome.

How State Divisions Can Organize to Serve Local Needs

By Ted Bell*

Since I have wandered around in numerous capacities in the "educational barn," your colleagues at The Center for Vocational and Technical Education thought I might be of some use to you in offering advice and expressing opinions on how your leadership efforts can be more effective in influencing progress in career education at the local education agency level. Because I have had my turn at serving as a chief state school officer, and because I am a recent refugee from the U.S. Office of Education, there has been here at The Center for Vocational and Technical Education some dubious reasoning that my advice might be of some value to you. At any rate, I am here and you are my victims, so I will proceed to give you the full load.

I do not know if the term career education was invented by Commissioner Sidney Marland. I do know that since I had the privilege of administering to him his oath of office on December 16, 1970, our new United States commissioner of education has made a stronger commitment and has provided more dynamic leadership to turn the schools of this nation around than any other previous commissioner in the history of the U.S. Office of Education. We are receiving strong and dynamic national leadership to change the focus and primary emphasis of our schools so that students will find relevance and true meaning in their learning endeavors. We have a commissioner of education more dedicated to the cause that you state directors of vocational education represent than there has been at any time in the past. You cannot complain that the focus of our national leadership is on academics nor that you do not have a strong voice for your cause in the highest educational office in our land. I believe that this fact should be clearly in our minds during this leadership seminar. It is an advantage that you have not had in the past, and you should strive to make your gains now while you have such strong support from Commissioner Marland and his staff in the U.S. Office of Education. What is more, Secretary Richardson and the president are firmly committed to career education as one of the highest priorities. I do not want to sound like a partisan at this time with an election just around the corner, but I do want to emphasize that there are strong commitments in high places to the cause to which you have dedicated your professional lives.

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I would like to spend some time discussing and defining career education and then conclude with some specific comments concerning your roles as state leaders in helping to advance the cause of career education through local education agencies.

Happenstance and Circumstance

I have discussed with a number of individuals quite prominent in their chosen fields this question of how they happened to be in the work that they are doing. I have yet to find an individual who systematically and scientifically selected his lifetime career by weighing many facts and arriving at a decision point. For some reason, most of us have more or less drifted into one line of work or another because of happenstance and circumstances.

In the times when we were growing up, career education decisions and analysis of talents, meshed with the demands of certain work responsibilities, were not nearly as critical as they are today. It has been said so many times that it is trite to repeat the fact that we live in a very complex society with highly sophistocated technology utilizing the findings of an ever responding research and development system. Comparing the U.S. Department of Labor *Dictionary of Occupational Titles* today and one ten years ago will reveal the fact that new career opportunities emerge each year. Moreover, the complexities of qualifying for entrance into many of these career fields is increasing almost daily. It is a serious matter for today's youth--and much more difficult and perplexing than it was in our time.

It has long been accepted by most of us in the field of education that the purpose of our efforts is to prepare our youth for a rich, meaningful, and rewarding life. Foremost in the pursuit of this aim is to find rich, meaningful, and rewarding work. It is important for all of us to enjoy our work and to feel that we are making a very worthwhile contribution to society. Without this feeling comes frustration and an outlook that we should be doing something else or that we have missed the opportunity to attain our full potential in lifetime work. I can think of nothing that would generate more bitterness in my soul than a feeling that I was in the wrong field of endeavor and that I was actually wasting my life in a treadmill situation of earning dollars in a job that was less than enjoyable.

The complexities of our advanced technological society make these career decisions very difficult for our youth. Many of the problems of alienation and frustration manifested in the youth of

America today are rooted in the difficulties of finding relevance and meaning in the life style and values reflected in the economic system of this country. Students, like all human beings, need a cause to which they can be genuinely dedicated. Schools, today more than at any other time in history, have a heavy responsibility in this entire matter. The new thrust in career education has emerged in recognition of this need.

Definition

Since the term career education is relatively new to many of us, we find ourselves reaching around for definitions and explanations that place career education in its proper setting in the school system. In order that I might be more clearly understood, I want to present to you my definition of career education. In doing this, I will try to say what it is not, as well as what it is. Hopefully, you will recognize what I am talking about from this definition even if you do not agree with it.

The concept of career education is not an extension of vocational education to make it more comprehensive. Career education applies to every student. To be successful, every teacher must be a career educator.

Career education makes a commitment for the school to be responsible for assisting each student to launch himself into a post-public school career objective. This objective needs to be developed by the student after intensive study of numerous career opportunities and an analysis of his own strengths as a person.

Career education accepts the fact that some students may leave school and reenter. It accepts the idea that education transcends the school curriculum and that the entire community is a resource for career development instruction.

Students who attend school with a purpose and students who select course work with a lifetime career objective in mind will be motivated to study and will be oriented toward performance. Early career decisions, even if they are changed in light of further study and growth toward maturity, help students to plan a truly relevant and meaningful individualized curriculum.

The entire school program of vocational and academic subject matter will have some emphasis and relevance to the student who has thoughtfully developed his lifetime career objective. When he selects courses and when he works on special projects in his entire school program, he will weave some of the thread of his career plans into the total school pattern. Each career education-conscious teacher assists him in doing this.

Career education is not anti-arts and anti-humanities, nor is it in competition with academics. It gives relevance and meaning to these subject areas. Career education does not reject education for quality living. It does not claim that earning a living and winning a high place in the economic system are to be the only emphasis for a career-oriented student. Career education looks at the totality of a life in the planning and development stages and calls for a rich and meaningful life that looks to many values that are aesthetic and spiritual. Concern for the "good life" and for active citizenship in a democratic society is not rejected by career-oriented students.

Placement, follow-up, and coordination with the educational, social, political, religious, and business institutions of the community will be emphasized in a career education program. Students who drop out and students who graduate remain the concern of the school. The career education-oriented school accepts responsibility for helping each student launch himself into a useful and promising career objective.

A major focus of the secondary school, and an important emphasis of the elementary school, should be on career education.

Career education stimulates the student and his parents to plan and execute a meaningful career development program in close coordination with teachers, counselors, and school administrators. Career education looks very carefully at student needs and plans and executes learning experiences related to them. It is responsive to individuals and places in time perspective the dynamic concept of individualized instruction.

Shifting Emphasis

If the foregoing definition of career education is accepted, even in part, it then follows that we must seek to shift the emphasis of academics. In fact, we should seek to vocationalize general education and generalize vocational education. We must weave into the total fabric of the educational program those experiences that will help the student to plan his life as well as to prepare for it. Obviously, the student will need a higher level of economic literacy than many of us attained when we left the public schools. Moreover, the career education program should sponsor opportunities for students to rap with well-informed and articulate individuals in occupations and professions of interest to them. This will provide an opportunity for our secondary school to establish a non-salaried, adjunct faculty representative of a cross section of the working world in the community served by the schools. This linkage and outreach into the community has a number of obvious side benefits that need no further elaboration or explanation.

Motivation

Motivation has always been a problem of deep concern to educators. Before a student can learn, he must want to learn. He must find purpose and meaning in his educational endeavors. He must see how his efforts are going to lead him to what he is seeking.

Too much of general and college-preparatory instruction lacks this direct appeal to the immediate self-interest of the learner. No longer can we successfully persuade youth that a study of the classical wisdom of the past is all they need in preparing for the future. We cannot satisfy them with: "Dig in and master this body of knowledge, and take it from me that it will be very valuable to you in years to come." The so-called "now" generation wants relevance now--they want to seek out their immediate needs and fulfillment. They want to set their own goals upon their own purposes.

Career education, strangely enough to some observers, will be the salvation of the liberal arts in our secondary schools and colleges. As we tie the arts and sciences to the immediate need of the student, we will spark the interest and generate the commitment as it has not been done before.

Teachers in the academic areas of our secondary schools are asked under the new career education emphasis to change and adapt current instruction to accommodate an emphasis and a meaningful correlation of the subject matter with career education. As mentioned earlier, this can happen in the English, biology, and mathematics classrooms just as easily as in the school shop. This will require broadened knowledge and expertise, but it will first of all require a consciousness of the fact that the school system is dedicated to helping the student to formulate and launch his post-high school plans for a lifetime career through very systematic and comprehensive preparation while in school on the secondary level. The emphasis in my definition of career education that every teacher should be a career educator is founded in this important principle. Life is too complex, and finding one's way to success in the modern economic system of this country requires that we no longer leave to chance the very vital career decisions and career preparations for each student.

As I see it, career education is a big part of the answer to this often asked question of relevance. Education, from the perspective of the student, needs to focus upon something quite concrete and real. It needs to be related to the immediate part of his life. The theme of career education, if it is construed broadly, should make the problems of motivation and direction of many of education's purposes more easily solved. Teachers will be able to tie subject matter into the student's total career opportunity planning experiences. At least some aspect of every course taken by every student in secondary school can relate in some way to the general theme of career education.

This will be particularly true if we define career education broadly enough so that we know it will help to enrich the life and meaning of existence for each student. The student's career plans should, of course, contain a proper mix of the practical and the ideal. The student should learn to understand the contribution that he will be making to society as fully as he understands how he will meet his own personal needs and fulfillment requirements.

The point I am emphasizing here is that career education, if implemented under a philosophy that encourages this end, will be a broadening and liberalizing education. I contrast this emphatically to the narrow skill training approach that has occupied the thinking of at least a small but significant number of vocational educators. I also contrast it with the liberal arts, for they have truly become narrow and focused on days past.

The values of the liberal arts and the humanities can be sharpened and can be given even more relevance in a secondary school dedicated to career education. Studies in the liberal arts can still be based upon the ideal of producing a well-educated and highly literate person. At the same time that a student is learning to appreciate the great classical knowledge and wisdom transmitted to him from the ages of creative scholars, he can relate the same to his life in the planning and formulative stages. In doing this, he can provide linkage in his own value system of the past with his future. This will happen in a more dynamic way, as I see it, if the school is helping him, under the banner of career education, to systematically plan his life related to his life's work and the contribution that he will make to society by executing his career plans.

A criticism we often hear, and recognize as a valid concern, is that education is too remote from the real needs of society as a whole. We all recognize that students complain about relevance to their lives at the same time that business and industry see a lack of understanding of the human abilities and skills needed to make American industry productive.

We are often told that we produce people for jobs that do not exist. Even in this period of some concern about unemployment, we find people looking for jobs at the same time that we find jobs looking for people.

Dividends

The outreach aspect and potential of career education should pay many dividends to students as well as to employers. Few would disagree today that some teacher training institutions have not been reaching out to size up the job market for teachers these past three years.

By bringing education closer to the working, producing real world, we will attain more effective understanding and support of business and industry on the part of education and more understanding and support of education on the part of industry. There is no doubt in my mind that business and industry have too many false ideas about education and its problems, just as educators are surprisingly ill-informed about the business world.

Career education of the magnitude and scale now being planned will be reaching outside the campus for help. To succeed, we must beat a path to the businessman on Main Street, to the professional man's domain of private practice, and to the production, distribution, and marketing enterprises of industry. This outreach will humanize our academics and liberalize our skill training efforts.

From this discussion of career education in general, what can be said to you as possibly the most important group of individuals in American education responsible for leadership in this vital field? How can you reach the school through the local school districts, where the day-to-day action of formalized teaching and learning activity goes on? These are the critical questions. The local school districts actually operate the schools. How can you generate the will and promote the actual action that will touch the lives of the students?

Suggestions

I believe you must approach these critical questions by placing yourself, as best you can, into the circumstance of the local school superintendent and his staff. Trite as it may sound, keep in mind that times have changed. I certainly found this to be true upon returning to Utah's largest school system after a two-year stint in the U.S. Office of Education and a seven-year stretch as a chief state school officer. We have collective bargaining. Pressure groups are more aggressive and wise. These pressure groups are burning with self-interest, and the heat is on the local education agency as it has never been before. Change is agonizingly difficult. This is so at the same time that change is needed more desperately and critically than ever before. So, keep in mind that local school administrators are under pressure. They are edgy and frustrated. Many of them feel insecure and threatened. Some of them unjustifiably think that they have the tough job where the heat is, while you have the relatively easy job where the heat is not. As you try to establish rapport with the local school administrator, follow the admonition of the Indian chief who said that before we are qualified to criticize, we need to walk a mile in the other fellow's moccasins. Even though you cannot actually do this, strive to reach your colleague by empathizing with him and by seeking a better understanding of his problems.

Now that I have talked about understanding the plight of the local administrator in today's world, let me turn to some specific suggestions:

1. In your directives, guidelines, and suggestions to local school administrators, strive to simplify. Use short sentences. Use plain, earthy language that tells it like it is. Drop the jargon, and lay it on the line. Insist that your staff write plainly, and definitively, and ration the words as if they were precious drops of water in the desert. We are all being inundated with paper, and we are all drowning in a sea of written, printed words. Brevity and directness are virtues of great price these days.

2. Don't write when you can call and make a direct, person-to-person appeal. There is room for more candor and more give-and-take that generates understanding when conversation is used in place of letter writing.

3. No school system can be better than its leadership, nor will significant changes of lasting value take place in career education without the commitment of the top man in the school district. Strive to reach the superintendent of schools with your message. Get on his calendar, and talk to him about his plans and aspirations for career education. Vocational educators need to rap more with the chief executives of the school systems.

4. Spend more time and money to develop leadership and commitment in the higher echelons of the local school system. Teach those who are teachable first, but try to reach those whom you label as recalcitrants. We are not spending enough training money on the top leaders. If you have to spend what may appear to you to be a disproportionate number of dollars in this area, it will still yield great dividends down through the years after you have trained and converted the chief executive of the school system and his top staff.

5. Use your discretionary money to persuade and lead. Offer incentives, and give rewards for outstanding performance in career education. Remember that the state agency has more discretion over federal vocational dollars than the U.S. Office of Education. You develop the state plans, and you have considerable latitude in setting up how you

spend your money. Without being blatant about it, of course, use the persuasive power of your dollars in a way that leads and rewards. Keep in mind that you prefer to get your money from the "feds" on a formula grant basis so you do not have the apprehension of competing. The local school district feels the same way in relationship to the state. Most of our money should come in formula grants, but a significant portion should be used for the recognition, reward, and incentive roles. If it is administered fairly and openly with some LEA involvement in the decision-making, you will find that, in most cases, you have support from the local school systems for your efforts.

6. Avoid the stereotype of a dogmatic vocational educator. Seek positive ways to involve the academics and the academicians. Try to lead in a manner that is worthy of the new theme of career education by making it broad and inclusive, rather than narrow and exclusive. The needs of kids will be met if this is done, and, as I see it, you will sell career education in the process by involving and disarming your opponents.

This is a time when many eyes are upon state directors of vocational education. Both the national and local leadership look to you to make the moves. You have a great opportunity accompanied with a tremendous responsibility. Public opinion is with you, and the opportunity for career education, at long last come into its own, occupies the here and now.

section four:

Career Education at All Curriculum Levels

Designing Programs for the Elementary School Student

By Edward Hauck*

As you know, The Center for Vocational and Technical Education (CVTE) has a charge to develop and implement a school-based Comprehensive Career Education Model (CCEM).

We are glad to have the opportunity to develop the model in cooperation with six school districts already committed to a career education program. They are: Atlanta, Georgia; Hackensack, New Jersey; Jefferson County, Colorado; Los Angeles, California; Mesa, Arizona; and Pontiac, Michigan.

Some advantages will result from this cooperative venture. First, it will immediately affect the lives of children passing through our schools. That is, it shares the promise of providing a comprehensive career education program to students at the earliest possible time. They will not exit from those schools while we take several years to design, implement, test, revise, and disseminate a curricular program. Second, we believe this cooperative venture brings to bear rich human resources and permits the sharing of materials developed. Third, it provides the opportunity to subject the model to reality testing from the outset. It provides for tryout and concurrent validation of specific components and elements within a school setting--indeed, within many diverse school settings.

The assigned task represents a very difficult professional, educational, and social challenge. We earnestly solicit your expertise, support, and cooperation.

At the risk of appearing prescriptive, let us examine what it means to design a comprehensive program of career education for the elementary school student.

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Definitions, Principles

First, to define some terms. What do we mean by career education? Defined broadly, career education is a comprehensive educational program focused on self-development in relation to careers, which begins with the entry of the child into a formal school program and continues into the adult years. What is meant by the term _comprehensive_, as in comprehensive career education? One set of dictionary definitions contains the phrase "of large scope." Synonyms listed are "broad," "extensive," and "full." The term _comprehensive_ should be a watchword contained in designs for career education programs. During the early stages of the CCEM project, it was necessary to define what was meant by _comprehensive_ career education. Our response was that career education is comprehensive in that it:

1. Progresses from early childhood into the adult years
2. Involves all students regardless of their post-secondary plans
3. Involves the entire school program and the resources of the community
4. Unites the student, his parents, the schools, the community, and employers in a cooperative educational venture
5. Provides the student with information representing the entire world of work
6. Supports the student from initial career awareness to career exploration, career direction-setting, career preparation, and career placement and provides the placement follow-through, including reeducation if desired

These statements, examined individually and taken collectively, provide a broad scope for career education program design. Given a narrow scope in the initial program design, the result is likely to be a fragmented piece of career education. To draw an analogy, I recall hearing a sermon titled, "Your God is Too Small." Without early and careful attention to the question, "Is it comprehensive?", your career education programs will be "too small."

In relation to the first principle, another follows. It may be unwise to design a career education program for elementary students in isolation from the related program for secondary students. Since career development is a continuous process paralleling human development, the program should reflect that continuity. This viewpoint is supported by Woods (1966) and Laws (1970).

Program design or redesign is contemplated as a result of perceived needs based on existing assumptions about human needs and what a program can and should do. The program is designed or redesigned on the basis of another set of assumptions through which it is predicted the outcomes will result in a reduction or fulfillment of the perceived needs without adverse effect on other desirable outcomes.

Ideally, we should be able to draw upon the research literature to identify program needs and program assumptions. Practically, it is possible to do so only to a limited extent. A program is an interrelated system. There are systemic gaps in the research literature related to both needs and associated assumptions. This is true for career education as well as for other theoretical frameworks. Available research provides only limited indicators to support theory or program construction.

Needs

Career development parallels human development. The child entering our schools already possesses attitudes, aptitudes, abilities, and interests. The child possesses some information about the career and life roles assumed by persons around him. An exchange of values and information has been taking place in the home and in the community. This exchange occurs on a limited and incidental basis.

We would agree, that left to his own resources, the child would continue to accrue information, values, and experiences--largely on an incidental basis.

This inadequate information and experience base has a limiting effect on the self-actualization of the individual--and therefore on society.

Many of our schools developed programs to assist the individual in career decision-making, near the point of decision-making, or exit from the schools, e.g., vocational guidance courses in grades 10, 11, or 12.

Later, these programs were extended downward into the junior high by some schools in order to provide a background for decision-making related to either selection of elective courses or programs in the junior high school or entry into a tracking program in the senior high school.

Continuous Process

More recently, it has been recognized that the system is not working satisfactorily--that career development is a continuous process that, if left unattended until the junior high years, has already undergone considerable atrophy. That is, during the student's progress through life and through our schools, by accruing information, values, and experiences on an incidental basis, he has already, unknowingly, eliminated many career options.

Information from several sources indicates that students are forming values about occupations early in their development.

Kuldau and Hollis (1971), on the basis of a study of students in grades 4-6, report, "It is likely that children have developed attitudes toward the world of work by the time they enter fourth grade."

Gunn (1964), in a study on occupational prestige, reported that boys in grades 1 and 2 describe occupations in terms of what it means to them personally. They value occupations in terms of their personal preferences and needs. By grade 3 they begin to see a prestige hierarchy in jobs. This hierarchy reflects their participation in the socialization process occurring in the home, school, and community--through family contacts, peer contacts, the school learning process, and their media exposures. Boys in grades 4, 5, and 6 used service criteria to rank jobs. By grade 7 a definite ladder of occupational prestige was evident.

This value system is incorporated into the basic personality structure of the student. This mental set becomes the mold for future perceptions towards career and life roles. It influences every further consideration of occupations and career patterns. And, as we shall see, it occurs before the student has had reasonable opportunity to: assess his developing abilities, obtain a realistic career information base, estimate realistic personal needs, assess the needs of society, and try out career roles.

There is evidence to suggest students begin to make tentative career choices very early.

Parker (1966) in a study of students in grade 7 in Oklahoma reports only ten percent of 29,000 students described themselves as having no vocational goal.

In a study of students in grade 8, Davis (1962) found sixty percent of the group had made tentative career choices.

What Value Base?

One would be led to ask, on what basis are values being assigned and tentative decisions being made?

Roe (1964) found college seniors in engineering and social work were affected in their choice of occupations by childhood experiences.

Uzzell (1961) described the stated influences on occupational aspirations of Negro male high school students in North Carolina as: (1) there was a definite relationship between respondents' occupational aspirations and knowledge of an occupational model; (2) the number of visible models may be limited in small towns that have a low socioeconomic level; and (3) occupational aspirations were influenced by mass media and by persons in occupations.

Thus, childhood experiences, models, and mass media exposure are influences in career planning and decision-making.

Going beyond Uzzell's concern about the availability of occupational models in small towns, it is possible to observe the same phenomenon in most of our social settings. Present school and social practices tend to limit the social experiences available to school-age children. Much of their working time is spent in a youth-centered environment. Outside the school, the student spends much of his remaining time participating in youth-centered activity groups. The range of adults in regular contact through youth activity groups both in and out of school does not vary greatly. For the most part, their ages range from twenty-five to forty-five years. They tend to be predominantly middle class. Their interests are typically more service- and people-oriented than is true of the general population.

The development of residential and tract neighborhoods has sharply reduced the range of personal contacts available to the student in both the ages of the youth and adult residents and the occupations represented. Further, the level of interaction in residential tract neighborhoods is often sharply reduced from the levels existing in small towns and mixed neighborhoods.

Urban planning has had the effect of separating business and industry from residential neighborhoods, often for good reason. Many additional factors keep school-age children from informal observation or participation in adult work activities--business security practices, insurance carrier regulations, child labor laws, and the formalized operation of businesses, industries, and social institutions and agencies. Lack of opportunity to observe or participate in adult work activities limits the human growth potential of the child or adolescent. It results in a failure to understand and to appreciate fully the roles of family members within the household, and a failure to recognize the effects of career roles outside the household on a family's life style and life pattern.

In summary, geographical loss of the extended family, socially stratified neighborhoods, participation in youth activity groups, and the separateness of business and industry from the mainstream of daily life settings combine to narrow and restrict the students' opportunities to develop the understandings, interests, and skills requisite for family or community living and present or future participation in productive service or work roles.

School Factors

Moving from factors outside the school, let's examine some of the indicators from inside the school.

Lifton (1959-1960) conducted a study designed to determine what occupational information was being presented to children. Based on the occupational information contained in elementary textbooks by major publishers and teachers' knowledges of occupations, he reports a distortion of both the importance of jobs and the types of jobs available. Teachers and textbook companies placed heavy emphasis on service occupations in the lower elementary grades and emphasized the professions in the upper elementary grades.

Tennyson (1963-1964) compared well-known reading series with the *Dictionary of Occupational Titles*. He found that: (1) the existing types of work were only narrowly represented in six major elementary reading texts; (2) principal professions and service occupations were presented; (3) clerical and sales occupations were rarely mentioned; and (4) career success was presented in a stereotyped, unidimensional manner. The latter is an oversimplification since there are many routes to career success. Since a student cannot come to value or select that which he does not know, imbalances in career information and overemphasis on professional and services occupations may result in overcrowding in those professions.

The present overcrowding in teacher education may be due to the limited availability of alternate occupational role models for students and the lack of broad-range career information.

As important as this problem is, there is a corollary of equal or greater importance. Self-esteem is an essential need for a self-actualized individual. For the child and adolescent, self-esteem is closely tied to esteem for family members and significant adults. Lack of social (school) recognition of occupations engaged in by members of the student's family would serve either to reduce the student's esteem for family members or lead him to question the goodness of the society (school) that denigrates roles of family members. The student could adopt a middle ground, resulting in some conclusion and personal insecurity. Family career roles that deserve recognition should go far beyond those identified as vocations. Appropriate social recognition should be extended to include family members' contributions to the family, the extended family, the neighborhood, and the community.

In addition to the imbalance identified in the presentation of career information in the elementary school, it is probable that the occupations presented are not being used fruitfully. Focus in the primary grades has been on "how workers serve us." We do not usually ask what it takes to be a postman or policeman. We do not often focus on the skills involved or relate school learned skills to roles outside the school. Little attention is given to the training--how one gets to be a policeman--or the advantages and disadvantages of his career. Little or no attention is given to other work experiences the worker has had. The child and the adolescent, often perceive the worker as the "compleat" worker. He knows that people are serving in career roles but doesn't know how they get there. Hill (1969) in a study of English youth ages seven to eighteen, documents changing perceptions of youth toward jobs, worker functions, training, obtaining employment, rates of pay, differential value and responsibility of work, and career aspirations. His findings tend to support the discussion above.

Resource Persons

One healthy attribute of primary school study of community workers is the use of resource persons in the classroom. This has the effect of personalizing the worker. It is not apparent that study of workers in the upper elementary grades includes this dimension. Here, career information is most frequently conveyed through reading. Field trips focus on the industrial process observed rather than on worker characteristics and worker performance. Seldom are resource persons invited to the classroom to personalize the worker. Yet, it can be clearly observed that students are more interested in people describing their career roles than in obtaining information about career roles from printed sources.

Louis Raths and his associates have assembled a list of human psychological needs deemed essential for self-actualization. These tend to be characteristic of other lists in the literature. They are:

1. To be loved
2. To belong
3. To feel economically secure
4. To understand

5. To achieve

6. To be free of excessive guilt feelings

7. To be free of excessive fears

8. To share and have self-respect

Moving past the first need, the reader is encouraged to consider the thrust of comprehensive career education goals toward need fulfillment. Briefly, need fulfillment is approached as the child understands his roles and the roles of others; knows how the social and economic system functions; conducts regular self-assessment to note positive growth characteristics; recognizes his present contributions to his family, neighborhood, and task groups; participates in actual or simulated adult work-roles; interacts with adults on a mutual interest basis; recognizes the acceptability and desirability of achievement in nonacademic areas; and identifies pathways to individual fulfillment.

Ginzberg and others (1951) characterize the elementary school years as a period of "fantasy" with regard to career choices. A shift to the period of "realism" is said to occur at grades 7 and 8. It is probable that general acceptance of this theory has delayed development of career education programs for elementary school students. The empirical base for this stage difference rests on the collection of data revealing "where the students were" regarding career choices, not "where they might have been" if adequate career education had been available.

Regarding the readiness of elementary school students for career information, Simmons (1962) in a study of students in grades 4, 8, and 12, reported elementary school children may be far more prepared to receive career information than had previously been assumed.

Some initial reports based on classroom trial of CCEM curriculum units this summer indicate students are interested in career education experiences.

Some Concerns

Three points of concern are frequently encountered in discussing career education for the elementary school student. The first relates to the belief that we are attempting to move career decision-making downward into the elementary school. This may be characterized as "closing options" versus "making options known." As we have noted from the discussion above, students really don't know about many options, yet attitudinally they are closing options prematurely. Our intent is to assure that the greatest possible variety of career options are opened to the child, and kept open as long as the individual desires, by planning curricular and real life experiences that provide for the balanced development of a wide range of abilities. It has been recognized that some students "turn off" or fail to "turn on" in selected school students during the middle and upper elementary school years. We wish to insure that the student has an adequate information base for him to recognize when he is increasing career options and which ones, and when he is closing off specific options. We want him to see that when he adopts the attitude that "he doesn't like math and isn't going to do it" a consequence will be closing options in engineering, many sciences, and so forth.

A.second concern expressed toward both elementary and secondary career education programs is characterized by the belief that students will be studying about or preparing for careers that will not exist by the time they leave school. Alvin Toffler in *Future Shock* (1970) discusses the need for increasing the "individual's 'cope-ability'--the speed and economy with which he can adapt to continual change." To attain this he states, "Johnny must learn to anticipate the directions and rate of change." Toffler postulates that individuals who are most aware of changing society, and are actively involved, are best prepared to cope with and plan for change. Well-informed students will be more able to see the interrelatedness of careers and move toward avenues of vertical or horizontal mobility as the labor market demands. Further he will know avenues for training and retraining and how to employ them.

A third concern relates to the belief that we are overly concerned with careers at a time when our technological society will no longer require productivity from all its citizens--indeed, will not be able to supply jobs for many of them. In opposition, Wilensky (1966) states:

> Talk of the leisure-oriented society and the decline of the "Protestant Ethic" has obscured the basic fact of the matter: modern populations on the average remain busy--with some groups becoming busier while other groups are condemned to forced leisure.

It is a fact that people in our society appear as busy as at any time in the past. The services rendered by our volunteer work force maintain and improve our society and provide personal fulfillment for many individuals not engaged in paid career roles. Career development toward paid career roles often provides the tremendous pool of expertise available through our volunteer workers.[1]

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[1] The writer is indebted to Earl E. Hall, associate project director at CCEM, for his lucid discussion of this dimension.

Summarizing this discussion of "needs," it is concluded that a comprehensive career education program is needed in the elementary school to insure that career development can be optimized as a critical dimension of self-capacitating human development.

Program Design

Developing the Matrix

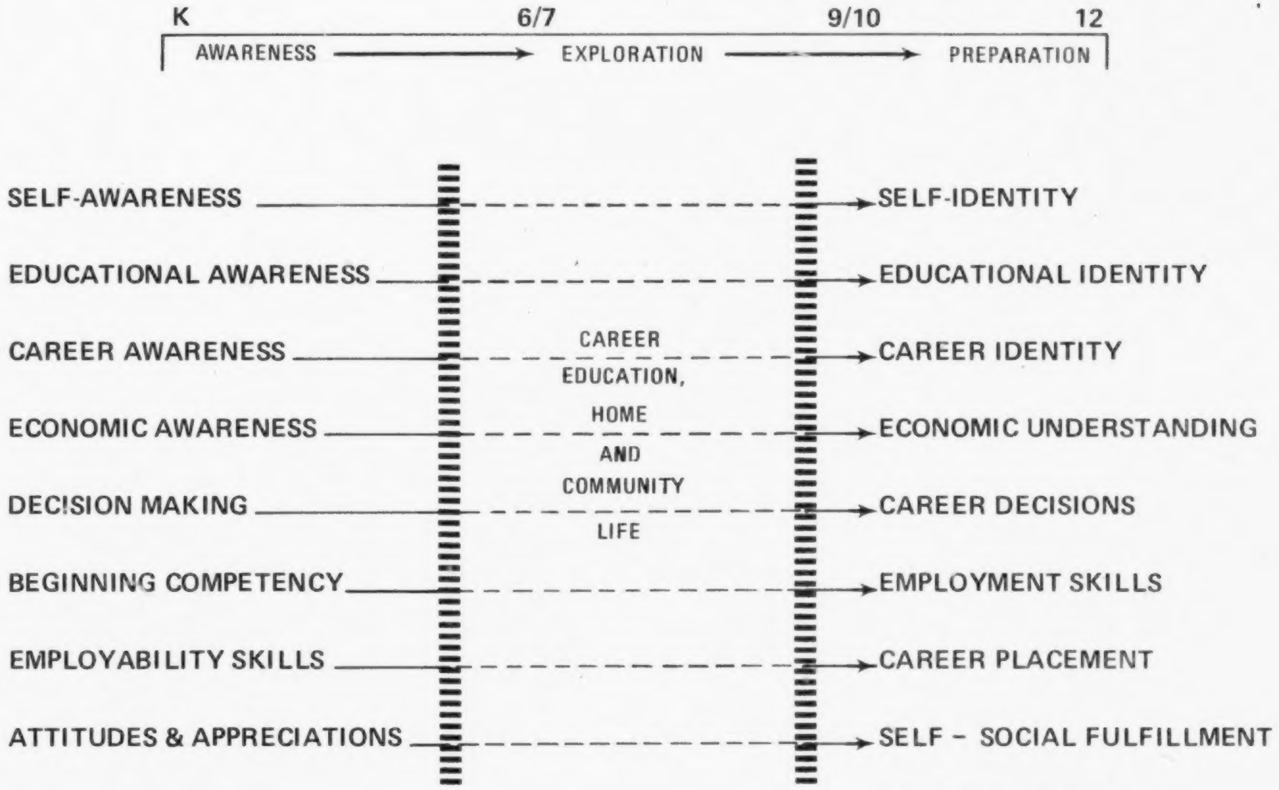
To design a program of career education, it is helpful to develop a program framework. Bruner (1960), Heath (1964), Phenix (1964), and Rosenbloom (1964) propose building curricula on the basis of the structural components or elements of the disciplines. Alternate routes of curriculum design were considered. Program descriptions resulting from the application of various routes were examined. The writer concluded that the identification of the major elements of career development would be likely to result in a powerful tool for developing program goals and objectives for a K-12 program. Given our human cognitive limitations, it is necessary to prepare a map that forces us to attend to the systematic development of a balanced curricular program plan. In process, we are prone to take many cognitive side trips, resulting in serious omissions and/or imbalances in the program design. This map can be drawn by identifying the major components or elements of the discipline.

Examination of the literature on human development, career development, vocational guidance, and vocational education revealed certain pervasive and reoccurring themes. These were extracted, integrated, and defined to provide a structure for the career education discipline. In accord with the principles of a systematic approach to design, element outcomes were also identified (Figure 1).

Definitions of Elements

The element definitions are presented in brief form. They progress from lower levels on the left toward higher levels on the right. It is hypothesized that these higher level outcomes, in combination, form the basis for mature career development. In process, as the student progresses through his development, the combined elements should provide an adequate basis for age-appropriate career development. Some educational approaches to each element are mentioned.

ELEMENTS OF CAREER EDUCATION



(Hauck, September 1971)

FIGURE 1

Self

Self-Awareness -- Knowledge of, and attitudes toward, self.

Self-Identity -- Knowing who he is, what he is like. Has a reasonably consistent internalized value system.

Movement toward self-identity can be assured by students being involved in: (1) a planned, sequential process of self-assessment and self-evaluation; (2) frequent interaction with peers, family members, significant adults; and (3) shared experiences with a variety of people.

Role of Education and Training

Educational Awareness -- Knowledge of, and attitudes toward, and relation between education and training--whether formal or experience-based--and the life roles performed by self and others.

Educational Identity -- Combines an understanding of the relation between education and training and life roles, knowledge of himself as a participant in education and training--his learning styles, pace, and capacities; and the ability to select and evaluate educational avenues for developing his career plans.

How can we provide experience that will lead to educational identity? Among other things, it will be essential for teachers of basic subjects to relate their content to careers in the world of work. The student will need to clearly perceive the relationship--where a relationship exists.

Education, training, and skill development received in the home and community should receive in-school focus. The role of hobbies and leisure time activities in developing career-related skills should be understood. Tracing paths to careers of actual and hypothetical persons could be engaged in.

Career Information

Career Awareness -- Knowledge of careers, particularly as it relates to the behavior, education, training, growth, rewards, and life style of persons in specific occupations or related groups of occupations.

Career Identity -- Selection of a role or roles within the world of work.

The student needs experiences with a broad range of careers. Career information opportunities can be sequenced to involve increasing levels of specificity and complexity consistent with the increasing maturation of the students. Parents and school staff can serve as resources in the classroom. Students can visit workers on the job, within the school, or at construction sites and businesses near the school. Students can interview family members, friends of the family, or neighbors. They can visit nearby businesses to observe and interview workers as daily and weekend homework assignments.

Secondary sources such as print materials, cassette tapes, films, filmstrips, and pictures may be analyzed.

Economic Information

Economic Awareness -- Knowledge of, and attitudes toward, production, distribution, and consumption of goods and services.

Economic Understanding -- Ability to "read" the economic environment to solve personal and social economic problems.

The child has observed and participated in the economic system to some extent. From this base of economic awareness we wish to facilitate the student's thorough exploration of the economic system as it relates to both career development and to the community and society at large. Simulations, games, budget-making, activities that relate to allocation of resources, and the study of economic practices and institutions will assist the student in developing greater economic understanding. Actual engagement in the production and distribution of goods can serve to effectively deliver on several major concepts.

Decision-Making

Decision-Making Skills -- Understanding cause and effect relationships, applying information about self, society, and the world of work in rational processes to reach decisions.

Career Decisions -- A careers direction-setting; the product of a rational process; a plan for immediate, intermediate, and long-term career development.

Progresses from making very tentative and flexible career decisions to decisions that are increasingly irreversible or reversible only at some cost of time, effort, or money. Should reach a careers direction-setting by grade 10 or early enough to prepare for entry-level skill in a career plan prior to school exit.

Student develops increasing skill and experience in the rational process of decision-making, practices making decisions, and comes to accept the responsibility for his decisions.

Here the school needs to provide opportunities for: making decisions, analyzing the process of decision-making, sharing in, or hypothesizing about the factors that go into a decision made by another person. He must have opportunities to act on his decisions--to test consequences. Teachers, parents, and interested adults are often hesitant to allow a child to act on any decision that might create mildly negative consequences. This may inhibit development of decision-making skills. The student can experiment with decision-making through simulations and gaming.

Occupational and Career Skills

Beginning Competency -- Consists of tool and process applications. Tool applications are defined as knowledge about, and skill in using, the ways in which man extends his behaviors. Man extends his ideas by use of language skills, painting, photography, and by building devices and materials. He extends his senses by use of microscopes, telescopes, X-ray, and measuring devices; his physical capability and capacity by harnessing energy. Process applications are defined as the individual or group sequences man creates or imitates to complete tasks.

Employment Skills -- Competence in performance of assigned job related tasks.

This broad definition of tool applications is drawn from Bruner (1966). Perhaps this definition of tool processes is a broader one than has been commonly used. We are not thinking only of the hand tools. What are the tools used by the secretary? (the telephone, paper and pencil, written language, shorthand, the typewriter, dictaphone, or records, etc.)

What processes does the secretary engage in? (using a filing system, filling out forms, typing a letter--form and style, etc.)

What are the tools used by a retail sales clerk? (spoken and written language, pencil and paper, order blanks and receipts, the cash register, etc.)

What are the processes he or she engages in? (following a sales procedure, demonstrating a product, display set-up, completing an order blank, filling out a receipt, etc.)

The reader is already familiar with many activities that lead the student toward higher levels of employment skills.

Placement and Adjustment Skills

Employability Skills -- Ability to conduct a search for, locate, and obtain career placement both on an initial and advanced basis.

Career Placement -- Acceptance of a position in line with the individual's career development plan.

Students need many opportunities to practice self-description, promote the positive aspects of self, and relate experiences, interests, hobbies, and attributes to roles served in society. Interview techniques should be understood and practiced from both sides of the interview desk. Applications can be filed routinely for classroom role assignments during the school year. Focus should be on the student's present activities, not future needs. He or she files applications for scouting. Elementary boys and girls like to make money. When soliciting paid work in the home or neighborhood, they may need to be able to identify work that needs doing. They may profitably practice describing services they can perform and be able to recount the experiences, interests, training, abilities, and characteristics they bring to specific tasks or jobs.

Being able to search for, interpret, and apply information from a variety of sources is in-line with progress in employability skills.

Sense of Social Participation

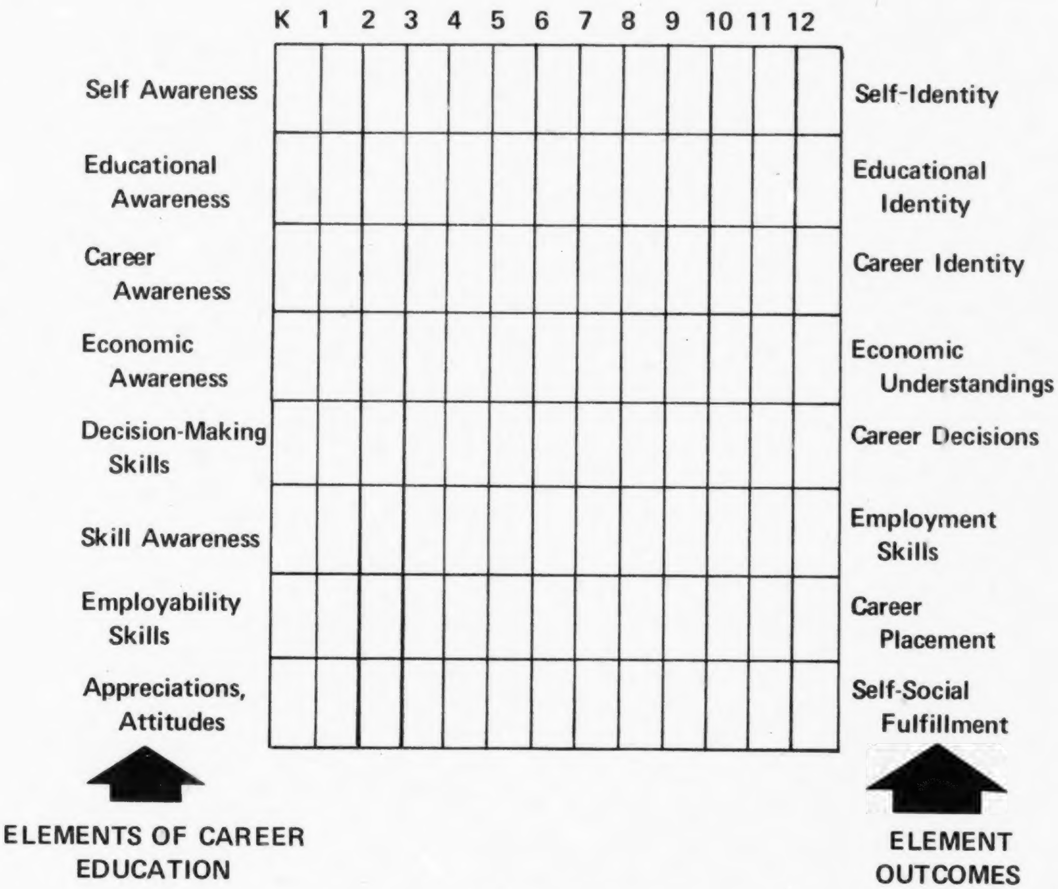
Appreciations, Attitudes -- Feelings toward life roles of others and the individual's own life roles, feelings toward society and the economic system.

Self-Social Fulfillment -- Internalization of a value system that activates the individual as a self-actualized, self-fulfilling member of the world of work. Derives satisfaction from work role.

This element was included as a means of assuring focus on the affective domain of family roles, career roles, and social roles. Activities that lead the student toward greater appreciation for self-performance and the ability and performances of others will assist in the development of a value system. School activities should encourage examination, expression, and acceptance of a variety of values. Examination of the interdependence and interrelatedness of family roles and roles performed in a single business or industry will assist the student in valuing differences. Participation in processes that require specialization to complete a task or develop a product can serve as a basis for reflecting on the interdependence that sustains individuals, task groups, families, communities, and societies.

Validation of the elements was undertaken by making a trial run at developing goals and objectives on a matrix of elements by grades. (Figure 2)

CCE Matrix



	K	1	2	3	4	5	6	7	8	9	10	11	12	
Self Awareness														Self-Identity
Educational Awareness														Educational Identity
Career Awareness														Career Identity
Economic Awareness														Economic Understandings
Decision-Making Skills														Career Decisions
Skill Awareness														Employment Skills
Employability Skills														Career Placement
Appreciations, Attitudes														Self-Social Fulfillment

FIGURE 2

Since it appeared reasonably valid that age-appropriate goals and objectives could be developed in a sequential pattern, and that coverage would be enforced, it seems acceptable as a tool for program design. Additional informal validation was attempted by testing the effectiveness of the matrix in capturing the goals and objectives of existing programs of career education. As expected, the elements were not always discrete but, individually or collectively, would adequately capture the goal or objective of another career education program. At that point, outside consultants in educational development, career development, vocational guidance, vocational education, developmental psychology, and curriculum theory were asked to review the elements. Two major questions were posed. Is each element necessary, and are the elements taken collectively, sufficient to define the structure of career education? With the concurrence of these consultants, we adopted the structure as an operational definition of the discipline.

The elements and definitions above operationally define career education for the CCEM project. They form the framework for curricular and programmatic thrusts toward the optimal delivery of a career education program to students. The various task groups within the CCEM project serve either to: (1) develop and enhance program delivery in a model form that is transportable and adoptable, or (2) provide the management support required to do so.

Selecting the Delivery Setting for Career Education

Careful consideration should be given to the delivery setting for career education. Examination of the literature, combined with a pragmatic view of the operating school within our social system, leads one to the assumptions that: (1) the most feasible delivery setting for career education is the classroom setting, and (2) the classroom teacher is the prime candidate for making sure it happens.

It is not acceptable in our society to farm out elementary students to business and industry or to professional or community agencies for any sustained educational effort--even if they could or would do the job.

It has been suggested that guidance counselors might deliver career education through group guidance in the classrooms. This has limited feasibility since most schools do not have elementary guidance counselors. If a trained elementary counselor reserve were available, the costs of providing the required number of counselors would be prohibitive. Further, a counselor-specialist coming into the classroom once or twice a week could not provide the desired sustained focus nor create the natural infusion of career education into the ongoing curricular programs.

From the above it should not be inferred that facilities outside the classroom could not be profitably used--they can and should be. Special centers or facilities could be developed within or outside the school as career education centers.

Field trips to business, industry, and community agencies should be made. However, the most ambitious schedule of field trips or career days will not provide a comprehensive career education program for students.

Elementary guidance counselors can and should serve in the K-6 career education program but in specialized, ancillary, and support roles.

The principle emerging from this discussion is: design a program for classroom delivery, employing classroom teachers.

Selecting the Form(s) of Materials

If a decision is made to use the classroom delivery setting and the teacher as the agent, consider the state of the system you are entering to determine the form the materials should take.

The elementary teacher in a self-contained classroom teaches nine or ten subjects--seven or eight of these daily. If specialists are used in physical education, art, or music, she meets with them to plan activities and frequently observes or assists while a specialist teaches. She is a member of one to three professional committees and averages one to two after-school meetings each week. She may have lunchroom duties, recess duties, bus duties, and scheduled or unscheduled meetings with parents after school. Typically, the last students leave between 3:15 p.m. and 3:45 p.m. each day. The teacher follows at 4:00 or 4:15. Few teachers stay longer except for committee or staff meetings. During the school day the teacher engages in two principle types of teaching activities: (1) introducing materials, setting the stage for learning, and guiding students through learning and evaluation experiences; and (2) assisting individual students or working with small groups.

There is no "planning period" set aside in the school day. An NEA survey revealed the average elementary teacher spends approximately forty-six hours a week in school-related work. What is the balance of the time used for? Out-of-school time is used principally for the correction-assessment-recording-reporting of student products, and/or preparation of student materials. For the busy practitioner, there are precious few hours for planning learning activities. Consequently, the major portion of the learning-materials dollar is expended for commercial materials--textbooks, workbooks, films, filmstrips, kits, recording--all, or nearly all, accompanied by teacher's guides. Teacher-created learning activities and materials account for a small part of ongoing classroom experiences. Teacher creativity comes principally in the adaptation of lesson plans to group and individual needs and in the development of certain unique units, lessons, materials, and activities.

The implications for career education are that if classroom delivery is desired and the teacher is the selected delivery agent, then the materials must take the form most easily adopted. An additional bonus will accrue if ideas for adaptation are included.

To reemphasize the principle, let me cite a personal experience. The state department of one state issued resource guides to the elementary teachers of the state to update their classroom programs. Following the advent of manned space flight came a state department booklet, "Resource Guide for Elementary Space Science." Being a conscientious elementary teacher, I examined it. It contained well-stated concepts and lists of related resources. For five or six weeks that booklet rested on the right hand corner of my desk--haunting me. It required the development of teaching plans and assembly of resources to put it into practice. Planning time was a rare commodity.

Some change agents adopt the philosophy that teachers need only good motivation to improve their classroom practices. It is probable that most experienced teachers share the frustration of receiving challenge and motivation at a convention or in-service meeting, go back to the classroom intending to alter their program or teaching style, find they do not have the plans or materials to alter program or practices, and lack the time to prepare plans and assemble materials. Other change agents go one step further. They believe if the teacher is motivated and is given some "good ideas," he or she will build an individual classroom program. The teacher may work in a few "good ideas." This may satisfy the belief that the teacher is teaching career education. It does not constitute a program--and may reduce acceptance of a comprehensive program. If you cannot deliver a comprehensive program in the initial effort, make it clear to the classroom teachers that they are getting just one installment of a comprehensive program. Insofar as possible, let the teachers know what the whole is likely to consist of.

Developing Program Goals and Objectives

Several considerations led to a decision to employ school district personnel to develop the CCEM project goals and objectives.

1. Consultants strongly urged us to involve teachers who would be adopting the program, in early program planning.

2. We recognized a need to have experienced teachers formulate age-appropriate program goals at each grade level.

3. We felt that having an adequate program structure and definitions made it possible to involve teachers productively.

The cooperating school districts were asked to supply, at each site, a team consisting of: (1) key or lead experienced classroom teachers representing all grade levels and disciplines;

(2) curriculum coordinators; (3) guidance counselors; and (4) elementary and secondary administrators.

Approximately sixteen to twenty-five staff members were involved at each site, usually on a released time basis. An orientation workshop was held prior to writing program goals and objectives. The group was given orientation to the project mission and to the structure of the matrix. To sharpen participants' discrimination of matrix elements, they practiced classifying sample objectives (written during the trial run at CVTE), then divided into groups for development of goals for a single element, e.g., educational awareness. The primary grade group would develop the goals and objectives for kindergarten, then grade one, and so on. At appropriate times, the entire group would meet to track goals and objectives across the grades.

A limitation in the development of goals and objectives was that these educators, like most others, were not accustomed to writing the performance objectives essential for adequate evaluation. This limitation was disturbing and detrimental but not entirely disastrous.

As a part of the K-12 curriculum effort then, a matrix of sequential, developmental program goals was developed for K-6 students. The matrix of program goals provided an operational framework for unit and materials selection, unit modification, and unit and materials development. In many instances, the high level of specificity of matrix goals and objectives indicate teaching strategies that might fruitfully be employed.

The matrix is, essentially, a massive scope and sequence chart, embodying statements with a high degree of specificity.

Selection of the Infusion Strategy

There are two major directions one may take with regard to changing school curricular programs. Courses can be added, or courses and activities can be changed. It was felt the better way to demonstrate that good career education is compatible with good education was to show how it could logically be incorporated into ongoing school programs. Additionally, the infusion process should directly demonstrate the relationships among subject matter content, real life applications, and personal development. Whenever possible, infusion units are developed as replacements for portions of subject matter programs teachers are currently using. They will deliver on appropriate subject matter goals as well as career education goals.

In most cases, at each K-6 grade level, only a portion of any one course will be replaced, perhaps five to twenty instructional hours. Many of the CCEM program goals may be adequately covered in this manner. It is hoped teachers will move outward from these replacement units toward infusing additional program goals into ongoing course work and/or provide extension and reinforcement of program goals presented in the infused units. At this stage of development, classroom and field trial, this discussion is speculative.

We believe the infusion process is likely to result in time-savings as regular content is taught in relationship to CCEM program goals. Further, teacher and school district acceptance is likely to be enhanced since this approach will not require major adjustments in the school schedule.

Selection of Curriculum Units

The developmental program goals serve as a basis for identifying and assessing curriculum units and materials currently in use. Existing curriculum units and materials were examined from noncommercial sources--from the six cooperating school districts, from a search of national, state, regional, and local school agencies, as well as identified exemplary projects in career education. Commercial materials were examined, as available, if they were an integral part of the units and materials in use.

Candidate units and materials were selected that delivered, or could logically deliver, CCEM program goals. From the resulting universe of units and materials available for examination, assessment was made as to suitability for specific developmental levels of students, and a cluster of units was selected that would provide adequate program goal coverage for a developmental or grade level, and career education experiences in most subject areas.

The strategy of selecting existing curriculum units and materials was based on a time/cost-effectiveness basis. Contractual requirements specified the assembly of appropriate curriculum units and materials currently in use, with revisions, modification, and additional development as required.

The teacher's guide form of material was selected for the first iteration of the curriculum units. The school district curriculum chiefs and the curriculum staff at CVTE were in agreement that student-accessed units and materials, with directions for managing their use, were the desired end products. However, a direct approach was judged not feasible for the following reasons:

1. The units and materials available for selection and modification were not in close approximation to the form of student-accessed materials.

2. The assembly, modification, development, trial, and revision of student-accessed materials into a programmatic effort required more development time than was available.

3. School district curriculum chiefs stated they needed time to identify and assemble unit developers--thus reducing development time.

4. There was a perceived need to immediately affect classrooms to meet students' career development needs.

5. Program description would need to be developed prior to materials development.

6. The instructional vehicle in closest approximation to a program description and judged feasible to meet actual and perceived time constraints was the teacher's guide.

7. It was judged the teacher's guide could serve as an interim instructional vehicle and contain the program description required for assembling or breaking out a variety of student-accessed materials and directions for their management.

8. School district curriculum chiefs agreed student materials would be assembled or developed during the first iteration when it was feasible to do so, within the allotted time.

9. CCEM curriculum staff were committed to a second iteration, where necessary, to break out student-accessed materials and provide alternate modes of delivering on goals.

In the Comprehensive Career Education Model, both a standardized format and guidelines for curriculum unit revision or development have been designed. These guidelines and formats specify the following components of a career education unit.

1. A teacher guide that specifies:

   A. The rationale for the unit

   B. Intended use of the unit by suggested grade level, subject areas, time, grouping, and special considerations

   C. Goals and performance objectives

   D. Teacher procedures

(1) Learning activities, including the goal(s) and performance objective(s), the lesson, description of teacher/student tasks, a summary, and other suggested approaches

(2) Resources

(3) Performance evaluation

E. Teacher/learner materials

F. Evaluation instruments

G. Specifications for in-service training of the teacher or person implementing the unit

Modification or Development of Curriculum Materials

By mutual agreement, units are assigned to specific school districts for modification or development. Often, the school district was the original source of the unit.

The assignment is to revise a unit--or in the case of new development--develop a unit that delivers specific CCEM program goals. An infusion unit must incorporate appropriate subject content as well as CCEM goals. The number of instructional hours which can be used is also agreed on.

Back at the school district, the school district project curriculum chief establishes a system and a team for: unit and materials development, local review, classroom trial, and revision--based on feedback from classroom trial and CVTE project staff reviews. He often employs curricular coordinators, teachers, and local consultants in the process. The unit is revised, brought into established format, and sent to CVTE for prepublication review. During unit development, CVTE school district site team curriculum staff assist in the process. Curriculum staff at CVTE serve in planning, coordinating, consulting, and reviewing roles.

In prepublication review, consideration is given to the adequacy of the unit for field trial in the other cooperating school districts with the primary criterion being, "Is it a good unit for kids?" or, "Would I want my children to receive this unit in their classroom?" Additional criteria are employed. Of concern is the balanced representation of careers, minority group representation, appropriateness for minority groups and ethnic groups, and avoidance of presentation of false stereotypes or faulty concepts.

Special attention must be given to the inadequate representation of women in career roles and the presentation of women in stereotyped roles in spite of the recent focus on women's rights and the prevalence of females on unit development teams. I don't know if our social system will tolerate girls exiting from schools twelve years from now who are cast in stereotyped career molds. Program design and development must constantly move toward making additional career options available to girls. If we do not make a vigorous beginning now, in our K-6 program efforts, it is not likely we will provide adequate program shifts before added millions of girls establish attitudes that are harmful and needlessly inhibiting for full and satisfying self-actualization.

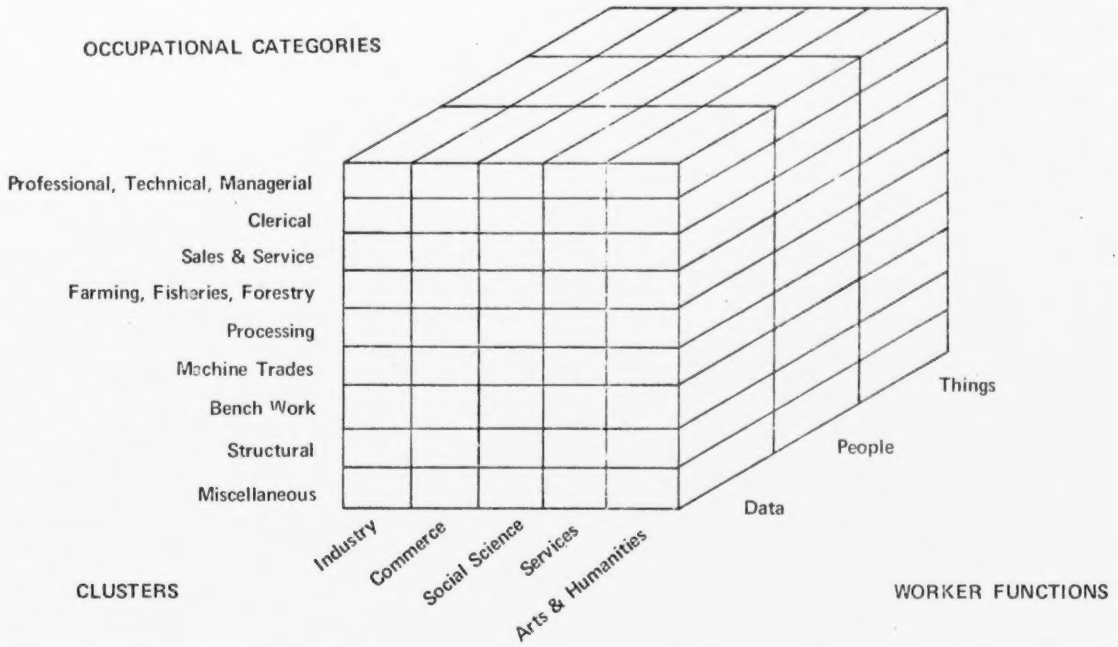
Another problem in unit and program development is the imbalanced representation of careers or occupations. In the discussion of needs earlier in the paper, the writer documented severe imbalance in the presentation of careers to elementary students. The best safeguard against this is to adopt a career information model. Perhaps it is not so important which model you adopt so long as it serves as a functional tool to provide for adequate and balanced coverage of: (1) workers at all levels, (2) various worker functions, and (3) industries. Some method will be needed for organizing and relating the many different industries represented in our culture. The CCEM Career Information Model provides a structural reference for unit developers, materials developers, and reviewers at local and CVTE levels. (A portion of the model is presented in Figures 3 and 4.)

Frequent reference to Figures 3 and 4 is required during the course of curriculum materials development to: (1) overcome stereotyped imbalance of service workers and the professions in K-6 materials; (2) provide balanced representation of levels of workers from managerial to bench workers, etc.; (3) provide representation of a range of worker functions and worker characteristics; and (4) provide balanced representation across the industries.

School and District Unit Resource Kits

Many units require materials that do not neatly fit into the teacher's guides. It is planned that a School Resource Kit will be prepared and accompany the units to a particular school building. The School Resource Kit might contain ditto masters, essential book and print resources, charts, filmstrips, slides, transparencies, simulation and gaming materials, records, cassette tapes, essential consumable materials, and realia. We believe the associated materials should be readily available to the teachers and students using the units. Within cost-feasibility limits, we would like to insure that they are. When films are required or materials that receive only occasional use are included, one or more School District Resource Kits should be provided.

CAREER INFORMATION MODEL - GRADES 4-6



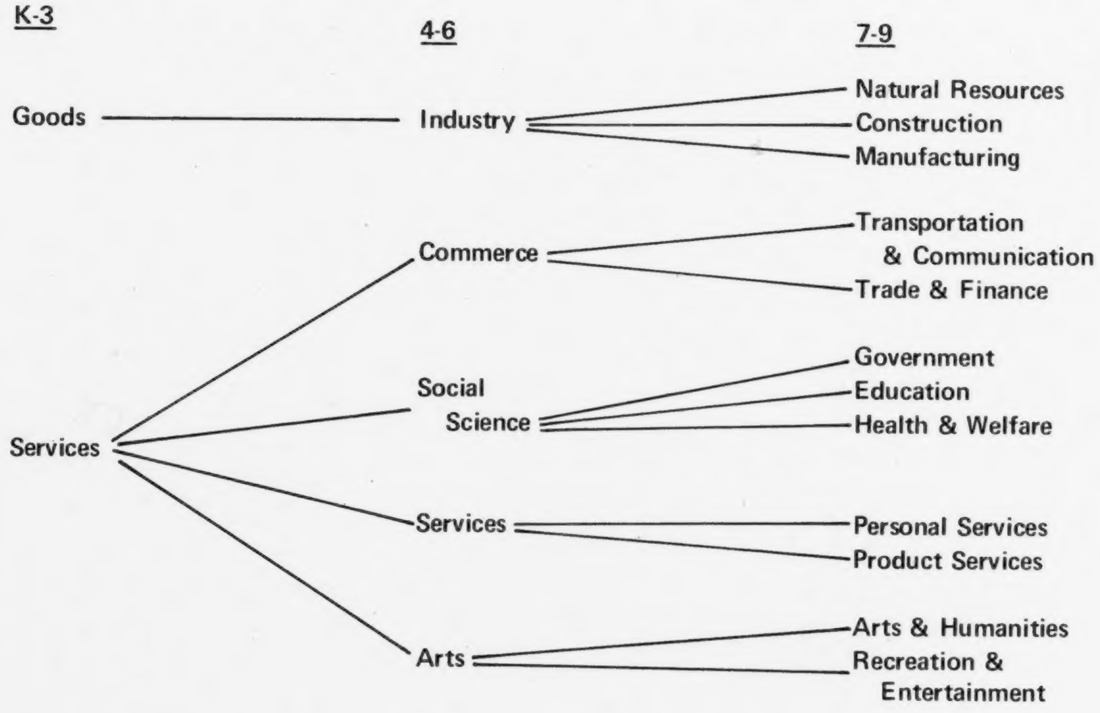
(Adams, March, 1972)

FIGURE 3

Evaluation of Curriculum Units and Materials

While our evaluation group has other responsibilities, a significant level of effort must be maintained to insure instruments and items are constructed that focus sharply on the performance objectives of the unit. Lesson-embedded test items are developed for each performance objective in the unit. In addition, unit tests must be constructed to test maintenance of performance over the life of the unit. Performance objectives must bear a matching relationship to the program goals. Constructing check lists and evaluation materials for nonreaders in kindergarten and readers of limited ability in the primary grades poses special challenges for evaluators. It requires unusual ingenuity and creativity to produce good evaluation instruments for these units and materials.

OCCUPATIONAL CLUSTERING SYSTEM - GRADES K-9



(Adams, March, 1972)

FIGURE 4

From our experiences, it appears beneficial to conduct training sessions for evaluators who work in the field with unit developers. Test item writing instruction and practice and the display of highly creative samples of instruments for elementary children should receive focus in the sessions.

In addition to the testing procedures, evaluation must provide strategies and instruments to secure abundant and valid information regarding teacher and student uses of the unit and attitudes towards individual activities and resources within the units. Adequate and valid information from classroom and field trial provides the basis for program and materials revisions. Those revisions can only be as good as the information base which directs revision.

Present CCEM Curriculum Unit Development at the K-6 Grade Levels

There are fifty-eight curriculum units under modification or development involving approximately 776 instructional hours over the first seven school years, K-6. These are designed as infusion units--replacements for portions of subject area programs teachers are currently using.

Most K-3 units are existing curriculum units undergoing modification to deliver on career education program goals. In one case, a unit selected for modification could not be used due to impending copyright. A unit that can be substituted is under initial development by one of the school districts.

For grades 4-6, it appeared that assembling existing units would not be practical. Development of new units was initiated based upon the CCEM Career Information Model. Existing units and materials were identified as resource materials for that effort. A unit is under development for each of five occupational clusters at each of the three grade levels with a sixth unit designed to synthesize the student's experience in the five cluster units. These cluster units are in the areas of industry, commerce, social science, services, and arts.

Most units in the first iteration, while designed for whole class use, provide alternate activities for individuals or groups within the class. Some units may lend themselves to ready adaptation as alternate units for individuals or groups of individuals with special interests or needs at a particular developmental level.

Program Description

As the many and diverse units are received at CVTE, they will need to be pulled together into a programmatic thrust. A description of the units and suggestions for their use will need to be prepared. At that time, during and after field trial, it will be possible to identify gaps existing in program goal delivery. Assembly or development of new materials and/or modification of existing units will follow, with corresponding changes in the program description.

Transportability of the CCEM Model

Since the model is being developed in close cooperation with users in six diverse school districts, the products that are transportable and useful within the six school districts should be appropriate for and acceptable to many other school districts. However, for those school districts that can, and wish to, develop their own curriculum units and staff development materials, perhaps the model products will not be the most transportable components. Descriptions of the program design, the program framework, and the processes employed may enable school districts to enter the process at whichever level they wish. They may wish to adopt and adapt the products. They may wish to adopt only part of the products but adopt some of structure and process descriptions in order to develop their own products.

Summary

There are many other considerations and components of the CCEM project that could and should be described: guidance, support systems, staff development. I would like to draw your attention to one additional consideration, and then reemphasize a major point for your attention as state directors of vocational education and leaders in the career education movement.

Curriculum Unit and Materials Expectations

I encourage you to keep your product expectations in line with the level of development. This is especially true of the first iteration of units and materials emanating from any new comprehensive curricular program. Your critical eye has been honed on slick publications and materials. Many "new" curriculum materials have been under development and revision five to ten years before they appear in the slick, complete version. *IPI Mathematics for the Elementary Grades* was under initial development in about 1964. The AAAS materials, *Science, A Process Approach*, got a start in the mid-sixties and underwent many field revisions before publication.

Overselling career education programs or materials prematurely will result in unrealistic expectations by the public, our professionals, and our students. Unfulfilled expectations will lead to excessive criticism, impatience, and frustration on the part of the public, the profession, and our students. This atmosphere is not conducive to program change--even when the change may be viewed as desirable by all participants.

A Final Note

As state directors, you will receive or participate in the development of many proposals for career education program design. The term "comprehensive" should be a watchword for your consideration of career education programs. May I remind you that a watchword is "a password or sign to be communicated to a sentry upon challenge." You should issue the challenge, "Is it comprehensive?" whenever proposals for career education program design are considered.

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Designing Programs for Middle and Junior High Schools

By Elizabeth Simpson*

Kevin and Denise are two of my young neighbors in southwest Washington. As yet, they have not become set in their attitudes. They are still pliable, still amenable to new experiences that allow them to explore and test themselves in various situations.

Kevin and Denise are seeking to determine their own identity. In various ways they are asking, "Who am I? What am I really like? What will I become?" Helping wash my car one Sunday morning, Kevin became more chatty than usual and started sorting himself out, "I'm a guy that gets A's in citizenship and D's in math. Some things I'm good at, some things not so good. One thing I have decided: I'm not a guy that's going to take dope. To me it just don't make sense."

Denise is experimenting with new ways of adorning her face and, as yet, practically nonexistent figure. She, along with Kevin, appears to be seeking models with whom she can identify and imitate as part of establishing her own identity. She isn't sure she wants to stay in school much longer; she will if high school makes more sense than her present school.

Denise and Kevin attend junior high school. They are still open and willing to give school a chance. For Denise in particular, it may be a sort of "last chance" thing.

In designing career education programs for the middle and junior high school, the needs and interests and characteristics of the young people served by the program, young people like Kevin and Denise, must be taken into account. Their openness, their search for identity, their concern for developing independence, and their interest in their potential place in society and in the kinds of jobs they might like are both opportunity and challenge in designing meaningful career education programs for the middle and junior high school.

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Characteristics of Special Groups

In addition to the general characteristics and needs of early adolescence as a basis for program decisions, there is need for considering the characteristics and needs of special groups of students.

Let me tell you a little story that illustrates rather well one of the problems we have in planning educational programs to serve one group with special needs.

> A father and son went to a resort for a few days of fun together before the opening of school. They did the things that fathers and sons like to do together. They swam, they went boating, they fished. They had so much fun that they extended their vacation for another day. It was late afternoon on Sunday when they started driving back to the city.
>
> The traffic was heavy and they had a tragic accident in which the father was killed. The son suffered severe head injuries.
>
> The son was taken to a hospital in the city. He was in need of immediate surgery and a brain surgeon of excellent reputation was called. But, the brain surgeon took one look at the boy and said, 'I can't operate on him. He is my son.'
>
> What was the relationship of the brain surgeon to the boy?

This same story was told to a large gathering of educators in Chicago a few weeks ago. Various answers were given: "The brain surgeon is a stepfather." "The first man was not really the father, but the mother's lover." "The brain surgeon is God." Of course, none of these answers is right.

If you haven't come up with the answer yet, just maybe stereotypes are getting in the way of your really planning effective career education programs for about half of our population. Let me read you a little poem by Judith Viorst that gives a clue:

> Where is it written
> That husbands get twenty-five-dollar lunches and
> invitations to South America for think conferences

while
Wives get Campbell's black bean soup and a trip to the
firehouse with the first grade and
Where is it written
That husbands get to meet beautiful lady lawyers and
beautiful lady professors of Ancient History and
beautiful sculptresses and heiresses and poetesses
while
Wives get to meet the checker with the acne at the
Safeway and
Where is it written
That husbands get a nap and the Super Bowl on
Sundays while
Wives get to help color in the coloring book and
Where is it written
That husbands get ego gratification, emotional
support, and hot tea in bed for ten days when
they have the sniffles while
Wives get to give it to them?

And if a wife should finally decide
Let him take the shoes to the shoemaker and the
children to the pediatrician and the dog to the
vet while she takes up something like brain
surgery or transcendental meditation,
Where is it written
That she always has to feel
Guilty?[1]

Of course, you know by now that the brain surgeon in the story was the boy's mother. But when you think of career education for girls, are you able to overcome stereotypes and think of the girl as potential surgeon, lawyer, airplane pilot, brick layer--as well as secretary, teacher, sales person, housewife? The stereotypes that limit women in their occupational advancement tend to limit us as we design career education programs. Particularly at the junior high school level, we have a golden opportunity to expand the vocational self-concept of the girl through the kind of career exploration that is made possible for her. Remember that the young female has been brainwashed by her early play experiences, her toys, her storybooks, and adult expectations. She will need encouragement and support in addition to relevant learning experiences in broadening her vocational horizons and aspiring to career success.

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[1] Judith Viorst, *It's Hard to be Hip Over Thirty and Other Tragedies of Married Life* (New York: New American Library, 1970), p. 55.

Socioeconomic Conditions and Needs

Well, as a basis for program decisions, the needs, interests, and characteristics of students are important. Of equal concern are socioeconomic conditions and needs. For example, rapid technological developments are forcing changes that will outmode specific skills learned in the classroom. Hence, curricula must emphasize teaching not what the facts are but how students can gather the facts they need, analyze them, and make decisions.[2] It will be necessary for all people to keep on learning to stay abreast of change. Educational updating will be carried on both at work and in the home, often by electronic means.[3] Increased leisure will also mean increased learning opportunity. The implications for the career education of young people are so obvious as to need no precise explication here. Certainly, emphasis on learning how to learn and how to think effectively and the processes of decision-making are suggested.

Of special concern to vocational educators is a developing erosion of work-oriented, achievement-oriented, advancement-oriented values, particularly among members of the middle social class.[4] Career education bumps right into this situation, and how to react is a question for those of us concerned with developing career education and vocational education programs. The Office of Education through the Bureau of Adult, Vocational and Technical Education has recently contracted for a series of career awareness films for three-to-six-year-olds to be shown in the Captain Kangaroo program early in 1973. A decision was made to emphasize the "goodness of work." This was a deliberate and perhaps, in some ways, even a bold decision.

The centrality of sensate, secular, humanist, perhaps self-indulgent, criteria in modern society[5] has implications for our educational programs at all levels. Do we accept these criteria as good, partly good, or undesirable? Much modern educational theory suggests a rather high level of acceptance. I think that the vocational educator must examine the question from his special perspective.

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[2] Staff of *The Wall Street Journal*, "Education: The Lifelong School," in *Here Comes Tomorrow* (Princeton: Dow Jones Books, 1967), pp. 153-154.

[3] Ibid., p. 154.

[4] Herman Kahn and Anthony J. Wiernees, *The Year 2000* (New York: MacMillan Co., 1967), p. 186.

[5] Ibid., p. 186.

For those designing educational programs for youth, there is need to consider such social and economic conditions as: high unemployment and underemployment rates among certain groups, particularly youth; changing occupational requirements; mobility of population; population density in urban areas; tensions of modern urban life; polarization of black and white in America, of affluent and poor; perceived and actual lack of relevancy in the educational experience of many young people and adults; emerging revolution of women with all of its connotations for the family and work lives of women and women's education; vigorous entry of the private sector into educational programs, particularly in the vocational areas; movement toward increased accountability in education; movement from a primarily production-oriented to a service-oriented economy; the pollution and devastation of our environment in all of its alarming aspects.

What I am trying to say is that, in designing the educational program, the first step is to consider carefully the bases on which program decisions will be made. One basis is the needs of students. Another is the needs of society. A third is the content and organization of the subject field. The occupational cluster concept has given us a handle on content for the exploration phases of career education. However one "clusters," the basic concepts of clustering are "commonality" with respect to certain dimensions of occupations and the purpose of "transferability" of a body of skills and knowledges among the occupations within a cluster. For the educational purpose of occupational exploration, the cluster concept offers a convenient way of organizing and developing content.

Value Bases

In addition to looking at the needs of students, the needs of society, and the content of the subject fields, educational planners should consciously consider the value bases for their program decisions. Values underlie all that we do; hence, we had better give conscious thought to them in planning our career education programs.

It appears to me that much of our vocational education has been planned in this mode: analyze an occupation for its task components; determine the behavioral objectives related to ability to perform these tasks; decide how to reach the objectives; and evaluate progress toward the objectives. It is inadequate for both vocational and career education. It is inadequate in several respects. One of the most serious lacks is the inattention to the values related to occupations and occupational choices.

Can we ignore the moral and ethical questions related to pollution of the environment when we teach about transportation and construction occupations? Should we prepare people for certain personal service occupations that do not afford a living wage? Could personal service occupations be reorganized in such a way that salaries can furnish a decent standard of living? Can we simply ignore the harmful effects of some products that are grown or manufactured through the efforts of persons in certain occupational fields? What are the effects of various methods of pest control on farm produce and on the environment?

Scant attention has been given to these kinds of questions, not to mention the larger questions of educational purpose and the source of moral authority for what we teach in the field of vocational education. To continue to ignore such questions would be highly irresponsible. Such questions might very well serve as content for a career education program as well as a major basis for decisions to be considered by curriculum planners.

With respect to value change and American youth, Walter L. Thomas says:

> We have produced a superior generation and don't know how to cope with it. Adults should stand back in satisfaction for what they have been able to do. They have been saying to children and youth:
>
> > You must get involved. You must oppose evil of all kinds. You must fight injustice. You must realize that every man is equal in spite of his color and religion. You must be concerned about the welfare of others. You must love your enemies. You must not look to money for everything. You must be honest and expose hypocrisy. You must never let freedom of speech and assembly be taken from you. It's your life, you must live it for what you think is right, regardless of what anyone or everyone will say. You must oppose tyranny.
>
> Today's youth have not lost their values, they have found them. They have discovered the ones everyone has been talking about, and decided to live up to them.[6]

Mr. Thomas' statement is a provocative one. If he is right, then it seems likely that many of our young people simply won't permit us to teach about jobs without looking at the related value considerations.

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[6] Walter L. Thomas, "Value Change and American Youth," *Forum* (New York: J. C. Penny Co., fall/winter 1970), p. 6.

Channels

Moving from the bases on which decisions are made about objectives, content, learning experiences, teaching strategies, teaching aids, and evaluation, suppose we consider the channels through which the middle and junior high school youth may explore the world of work and the career possibilities in terms of self. Hands-on experience is an imperative for meaning and motivation in the exploration experience. This means an active involvement with the business and industry of the community. It means involvement with workers in the community and, hopefully, identification of the young person with desirable role models to help promote his developing sense of self as a worthy person and as a contributing member of society.

Intensive guidance and counseling are essential in the career exploration program of the middle and junior high school. A comprehensive career education program will emphasize the guidance and counseling aspect, will provide career education-oriented guidance personnel to help young people with their task of developing a realistic and desirable self-identity.

A career education program at the middle and junior high school level will provide for the relating of academic and vocational education in meaningful ways. There are a number of alternatives with respect to how they relate. In some emerging programs, the academic subjects serve as vehicles for carrying vocational content. In others, vocational courses carry academic content. In one school, nine-week modules that are occupationally oriented are being developed for inclusion in a year's program in several academic areas. Occupations related to communications are included in the English course; occupations related to personal and public services are included in the social studies course, and so on. A number of possibilities for correlating, coordinating, integrating, and fusing academic and vocational education exist. At this point in time, trying various models and comparing the effects is useful. Perhaps at some later date, we will be able to state what models and strategies are most effective.

Designs for career education programs at middle and junior high school levels should take into account what has preceded in terms of developing career awareness at pre-school and elementary levels and what will follow in terms of occupational preparation. This is, of course, stating the obvious--but in this case, the obvious needs emphasis.

Designing an educational program is a complicated undertaking. It involves a careful analysis of the bases for program decision; it involves the development of both global and behavioral objectives; it involves developing the content in terms of basic concepts and generalizations; it involves identifying appropriate teaching aids;

and it involves the determination of means of evaluating progress toward objectives. In the case of career education, it involves working closely with the business and industrial community. We are just at the beginning of our planning efforts in career education. An educational program of exciting new dimensions is taking shape. The diversity of effort is part of the excitement as we seek ways of implementing the career education concept in educational practice.

The most exciting part of all is what career education can mean in helping young people like my neighbors, Denise and Kevin, to develop their full potential as employed persons, as citizens, as homemakers, and as family members. Denise and Kevin and young people like them are reason--reason enough for our designing and implementing career education programs.

Designing Programs for the Senior High School Student

By Jerry Olson*

Survival in the task of designing comprehensive career education programs depends on the recognition of existing problems, the anticipation of new problems, and the discovery of practicable solutions to both. Anticipation and awareness of such problems lead to frequent reevaluation of objectives and result in the changing of methods to meet newly discovered objectives.

One of the most defensible reasons for changing educational means and ends is to achieve the paramount end or objective of keeping program content and methods updated to support contemporary thinking.

This process of continual reevaluation and debate over the proper goals and the best ways of updating industrial education has been part of the activities of our profession for decades. National studies are underway at this time to redefine competencies needed for the work force of the business/industrial communities comprising this nation, and to identify those elements of them that can best be introduced into an educational setting.

Groundwork

The groundwork for this task in Pittsburgh began in 1963. Then in 1964, the charge to the Pittsburgh schools was given to find not only a way to provide educational programs that would mesh appropriately with results of the impact technology has on industry and business, but also to find ways to implement the new concept. The recommendation included these words: "It is necessary that at least sixty percent of the current and future high school population be given some occupational, vocational, technical, or professional training other than through four-year colleges that will be salable to industry."

A rationale for OVT (occupational, vocational, and technical) objectives was developed out of the efforts to carry out the charge.

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The rationale is this: "Vocational education broadly conceived has long eluded us. It must be viewed as a developmental process that takes place during a span of time. During any developmental process, there need be no antagonism between learning through observation and action and the acquisition of knowledge by more cognitive means. Each should supplement and support the other. The practical side of school life is becoming increasingly recognized for the contributions it is able to make to education. The school's concern for process, for functional use of knowledge, and for the acquisition of behaviors and skills consistent with the social setting of the school is paramount in the philosophy of OVT."

One might say that the rationale is founded on the philosophy of blending the disciplines to form an occupational mix.

In recognition of the very real barriers that separate the various disciplines in vocational education, it was realized that flexibility would be necessary to implement the OVT concept in the schools. The various separated disciplines had to be replaced with a gear-meshing type of operation that would commingle segments and elements of learning when and where they contribute to the developmental process.

Two significant forces favor that the needed flexibility can be achieved: organization and use of facilities and instructional manpower and the financial flexibility now possible with a state plan that reflects the attitude favoring increased flexibility in four perspectives under consideration in comprehensive career education planning.

The flexibility recommended in the legislation, the desire to meet the vocational needs of more students in Pittsburgh, the migration of the productive city population to the suburbs, and the need for more diversified training at several levels have caused Pittsburgh to begin beating its way back to the comprehensive school. The OVT concept is based on and working toward truly comprehensive educational institutions. Comprehensiveness breeds articulation between general education and vocational education. Present vocational schools ally themselves with an academic complex or become comprehensive schools themselves as Pittsburgh meets the needs of students by providing virtually all secondary education in the comprehensive high school.

OVT education seeks to end the separation of vocational schools and curricula from the general academic programs and attempts to provide flexibility and adaptability within the programs to give students job-entry preparation for current industrial needs.

Flexibility is a key feature of OVT. It makes it possible for a student to follow a skill-centered program within the various

OVT offerings while gaining academic credits toward qualifying for college entrance.

Installation of the OVT programs called for a drastic change. It meant ending operations of separate vocational high schools and marrying vocational education with academic classes in truly comprehensive high school and post-high school curricula.

There were compelling reasons for making the drastic change, each requiring a perspective of the task at hand, namely: (1) urban perspective, (2) educational perspective, (3) human perspective, and (4) construction perspective.

Urban Perspective: To help the school and community grow in harmony

Recognizing the relationships between the Pittsburgh public school system and industrial, business, and other socioeconomic forces in the metropolitan area, members of the Pittsburgh Board of Public Education were aware of the impact of modern technology. They sensed that a new kind of vocational-technical education was needed to attract new industries and to hold more young, productive workers.

Surveys of vocational education have been conducted that involved a review of the industrial economy, industry's manpower needs, present vocational offerings, and student-parent opinions. The findings reveal information that provides a framework for constantly assessing occupational, vocational, and technical education programs.

The OVT Division is responsible for the program and instruction in vocational-technical education that provide students with the salable skills needed in a rapidly changing labor market. Both program and instruction must be flexible and frequently evaluated in light of changes in social and economic conditions. The curriculum must provide students with concepts that are applicable to the rapidly expanding range of occupations, with the intellectual skill to use these concepts, and with the ability and desire to develop new ones. Effective and relevant programs offered by this division should lead to employment for those seeking it. They must also be comprehensive enough to enable a student to further his education if he so desires.

We feel that any school which couples programs provided by the OVT Division with academic programs is worthy of the title "comprehensive school"--regardless of how comprehensive is defined--because the programs serve to:

1. Identify the abilities and learning styles of each individual.

2. Provide each student with information, skills, and knowledge about the world in which he lives.

3. Develop competencies that each student needs for accomplishing vertical mobility and that enable him to create and achieve to the best of his ability.

4. Establish a value system for each individual that will provide him with the insight to make decisions and the flexibility to be tolerant of the wishes and desires of others.

Since the inception of OVT in 1964, the traditional distinction between vocational-technical and academic education, with a great deal of prestige accorded the latter, has been somewhat modified philosophically. Practically, we know a great deal more about skill-centered education than we have been able to implement. We know, for instance, that the demand for skilled manpower is increasing; that the amount of technical training required for employment is increasing; and that the prestige of jobs requiring specialized training is increasing with changes in technology and the local labor market.

All of these factors blur the distinction between the need for education that prepares the student to earn a living in certain fields and the need for education that prepares him to deal with logical, ethical, and aesthetic problems. For some students, vocational education subjects develop immediate skills for employment; for others, these subjects will only be avocational experiences; and for many, the experiences will broaden their alternatives for vertical mobility within a given occupational cluster.

OVT has sought to modify traditional ways of programming and viewing students. The value distinction between vocational-technical and academic education must end if the goal of comprehensive education for all students is to be met. Significant changes in program and instruction in both vocational-technical and academic education are necessary when changing from specialized to comprehensive schools. Rigid, blocked schedules are "out" if more broadly conceived educational objectives are to be accomplished.

Industrial education stands on the threshold of vast programmatic and facility change. Coming is a new emphasis on the individual, the structure of the social and learning environment, and the architectural considerations needed to implement these changes. Technology is changing the social order and it, in turn, is providing the impetus for educational change. The explosion of cognitive information and the speed of psychomotor processing are forcing a reevaluation of job preparedness and the ways and means through which it is achieved. The demands of the job market have been spiraling upward to fulfill the tasks demanded by research and development personnel and the consumer. Increased population, medical advances, and an emphasis on individual fulfillment have brought on expansion of the service-producing industries. New and different knowledge and skills are needed for a shifting labor market that shows drastic declines in agriculture and mining, moderate declines in manufacturing and other goods-producing industries, and heavy increases in the service-producing areas of transportation, public utilities, finance, insurance, services, and government.

Learners destined to face the working world must be flexible and have the ability to adapt what they have learned. Therefore, the concern of industrial educators should be directed toward preparing the learner for the immediate step from the classroom into a job or advanced education. Each learner must be coached and be receptive to the idea of the infinitude of learning, the ability to make decisions, and the aspiration to contribute to society.

The times demand that industrial educators be responsive to innovative ideas, reform, and experimentation to better serve a significantly larger number of learners. Program emphasis must be placed on the learner and his individual performance expectations rather than on instructional content, subject matter, or categories of vocations. A view of industrial education should depict a developmental process--taking place during a span of time, different for each individual, and showing no antagonism between learning through observation and action and the acquisition of knowledge by more cognitive means. Each should supplement and support the other.

Education's concern for process, for functional use of knowledge, and for the development of behavior and skills consistent with modern society's needs is paramount.

Educational Perspective: To provide flexible facilities for a comprehensive curriculum

In Pittsburgh, any student in grade 11 may enter any skill-centered program he chooses. Beyond that, any student who is at least sixteen years of age, regardless of his grade placement, may enroll in skill-centered programs.

The thirteen comprehensive high schools offer fifty-four skill-centered programs that prepare students with entry-level competencies. They are taught in 360 sections of approximately twenty-five students each. In addition, at the Connelley Skill-Learning Center there are nineteen entry-level programs taught in thirty-eight sections which provide opportunities for out-of-school youth.

By expanding program offerings and the school day to a full nine periods, the system can make arrangements to accommodate virtually every student, including the exceptional, in the program of his choice during the high school years.

The student continues in the entry-level program (grade 11) as long as he is benefiting from the instruction. As a result of this exposure, he may continue in the educational program at grade 12 or may take intense, specialized instruction to prepare for immediate employment in a cooperative work experience.

Nine work experience coordinators spend full time "opening doors" for students in business and industry. In addition, thirteen liaison teachers with rehabilitation skills and contacts work with students, teachers, counselors, and employers to place exceptional students who reach their maximum level of competence in the school program.

The open enrollment concept centers on providing many educational opportunities for students, plus experiences that encourage an interest in one or more occupational fields. The decisions are made by students after they have explored and exposed their potential abilities and their likes and dislikes about an occupational field.

Since the decision power is primarily vested in the students--with counsel and guidance from the entire teaching team--it is incumbent upon the OVT Division to ensure that there is continuity from initial experiences through entry and advanced levels of training.

The majority of jobs today involve more skills than those taught in a single discipline. Industrial representatives realize this and often recommend diversified skills for employment in a specific job. The commingling of the disciplines enables the schools to better implement the recommendations of a total of fifty-four advisory committees involving more than 500 industrial, lay, service, and civic leaders.

Flexibility and interchangeability are paramount in program planning at grades 9 and 10. The potential OVT student is only tentatively identified with a discipline until grade 11 when he chooses a job-centered program. In grades 9 and 10 he is instructed in the "common threads" or elements of his tentative job family selection.

Those developing an educational program that advocates flexibility and adaptability to meet current industrial needs cannot say, "this is it" and rest on their laurels. We realize that meeting the objectives of program integration, guidance, articulation, differentiation, exploration, and socialization becomes an ongoing process and that the job is just beginning. The implementation of an educational concept is the real test of its soundness and the eventual benefits it can afford students. The first step in developing an educational concept as new as OVT involves being able to ask the right questions. We feel we have done this adequately and have developed answers to these questions, at least for the time being. We are presently implementing the programs with the help of teachers, counselors, principals, students, and parents. All must realize the dignity associated with preparing for a salable skill in the secondary schools as well as providing an educational program which prepares students for college. We feel a student should be able to do both if he so desires, and we have provided for this by more flexible scheduling in the intended school day. The implementation has been possible because of the support given at the federal, state, and local levels. Some of this support has been of a financial nature, but also important is the backing and selling done by so many individuals in the urban setting. Because of their efforts, vocational education has begun to obtain its rightful place in education. The marriage of varied disciplines and services in education should provide each graduate with a better understanding of self, the foresight to see the benefits derived from viewing education as a continuing process, and sufficient skills and knowledge to find employment at the entry level.

Human Perspective: To emphasize and reinforce the dignity of each student

Vocational education today has a responsibility to design programs that provide equality of opportunity and also meet the human needs of all participants. Educational experiences which develop "people" relationships will enhance each individual's perception of the working world and encourage him to feel good about himself and the contributions he can make to society.

Perhaps the most important task of modern vocational educators is the choosing of learning activities that will enable the individual, regardless of age, grade level, or background, to: (1) develop an understanding of himself; (2) increase his skill and earning potential; and (3) acquire knowledge that is salable in the working world. These goals are met and enriched through learning experiences that develop traits that foster decisions, judgements, and evaluations about abilities and potential of self.

The ability of vocational educators to meet the challenges facing them today depends on their willingness to cooperate with others in education, which, in turn, depends on the elimination of rigid separatist attitudes. A broadly conceived vocational-education program must serve all--youth, adults, the displaced, the disadvantaged. It must prepare a better-trained labor force and provide opportunities to acquire salable skills.

Vocational education is one of the most important and widely discussed institutions in our society. It is also one of the most widely misunderstood. Many people do not understand the history and purpose of this great American educational institution and are quick to criticize efforts that attempt to meet two distinctly different functions, service to a technically oriented society and service to a human-oriented society.

The separatist attitude is complicated by many area vocational-technical school teachers and staff who have high standards and feel that all students must meet a given set of criteria for entry and graduation. Generally, they do not support the theory that there could be spin-offs for programs as individuals reach levels of competency commensurate with abilities.

The spin-off concept has been supported by some vocational educators who have lumped all jobs that fall beneath the top-level job of a job family into one generic category and have attempted, in some instances, to implement programs that serve more students. But they do not classify this as vocational education. Some say it is occupational education; others say it is part of the comprehensive high school and really not vocational education.

There are many reasons given for not identifying such innovative programs as vocational education, but the most common is that vocational education is a distinct entity and must maintain the reputation of its title and the individual teacher's image in the industrial community. Thus, the feeling among many vocational educators is that they can prepare only those students who will meet the requirements for the top-level job in any given trade or craft.

Vocational educators must realize that attainable goals vary among individuals; they are constantly changing, need periodic evaluation, and require many programming alternatives. Credibility with business and industry is not endangered when the employer is apprised of realistic job skills and expectations. The challenge is to develop, implement, and manage programs that have the flexibility to serve the individual needs of each student and that develop his attainable skills to the highest degree.

Construction Perspective: To develop an efficient building system

As the future begins merging with the present, industrial education facilities and programs must be attractive and have high accountability with students and the community. A conscious effort must be made to have students see the various aspects of a program and become actively and proudly involved if they are to identify the opportunities available to them.

During the job-preparatory years, it is estimated that half of a student's time will be spent in the library, in job-performance laboratories, or in other work areas where he can search for answers, analyze data, and develop his conclusions in writing. To accommodate the wide range of abilities and the significantly large numbers of students for which such a design is intended, it is desirable to separate the cognitive and psychomotor competencies and tasks for each cluster group. Classrooms are essential to teach the cognitive information within a cluster to homogeneous groups of students; learning carrels are necessary for individualized programmed instruction; and massive open-space, flexible laboratories are necessary to teach manipulative skills to extremely heterogeneous student bodies.

Students who are developing either short- or long-range salable skills, whether at the beginning or advanced stages of their development, may be educated within the same laboratory. Initially, space should be flexible enough for educational planners to respond to future changes with a minimum of inconvenience and expense. Fixed installations should be located in the laboratory's center, and perimeter areas should be free and unassigned in order to permit changes and expansion.

With the aid of folding walls and partitions, instructional space should be designed to shift accommodations for small or large groups and for different types of activities and equipment.

Model laboratories have been designed that indicate how facilities for general job clusters may be grouped to better utilize space, equipment, and innovative teaching techniques. The models ultimately result in reduced capital outlay and operational costs, as well as offer an increased range of educational experiences for each student.

Providing program and facility accommodations for sixty percent of the students now in grades 11 and 12 has helped change the attitude of educators and, hopefully, the image of vocational education in Pittsburgh. The immediate implementation of the comprehensive plan involved vast facility and equipment expenditures of the following types:

1. Remodeling of existing in-school shop or laboratory space

2. Incorporating previously unusable in-school space

3. Constructing new facilities

4. Acquiring new space in buildings adjacent or in close proximity to academic schools

5. Converting conventional classrooms into OVT labs

6. Sharing of facilities by two or more teachers

In addition, two specific facility projects have aided the OVT staff in their planning efforts. A research and demonstration project titled "A Comprehensive Concept for Vocational Education Facilities" led to the development of a theoretical model for planning flexible OVT facilities. The other project utilized the services of a consulting team from Odell MacConnell Associates to develop educational specifications for comprehensive high schools.

The design for the theoretical model, and the environmental system that resulted, has aided curriculum developers by demonstrating that a flexible educational facility can be developed. It is now possible for curriculum developers to design the best instructional program possible with assurance that it can be implemented.

The systematic collection of data about environmental needs of each educational activity, an analysis of environmental and instructional similarities, and simulation of class activity patterns will help planners identify realistic needs of a quality program. The environmental system described here has not yet been implemented in its entirety, but it does provide a theoretical model for facilities that is proving to be helpful in planning a model OVT facility for the comprehensive high school.

The beauty of designing facilities for a comprehensive setting is in working with the total school philosophy and objectives. Only by having a clear understanding of the total picture can the facilities for one part, OVT in this instance, become an integral part of a system of education--a student-centered system designed to educate all students.

Opportunities for students to seek out their own level by offering a wide range of programs in all fields negates classifying and ultimately tracking students. Just as OVT facilities are an integral part of the total system, students taking OVT courses are an integral part of the entire student body.

The success and effectiveness of Pittsburgh's comprehensive movement, particularly in the practical disciplines of OVT, depend on viable programs. The facilities needed to meet the needs of students in a vast and far-reaching comprehensive undertaking must be completely flexible and change as programs unfold. Changes are inevitable if programs are to reflect existing and new instructional clusters that evolve from expanding technology and new societal needs.

The activities and projects undertaken so far in Pittsburgh have provided valuable experience and explicit information needed to consider programs and facilities for today and for the future. During the past eight years, advisory groups, central staff personnel, and teachers have all played a significant role in curriculum planning.

Program plans to meet existing needs have evolved concurrently with facility expansions in thirteen academic high schools. Curriculum planners have become increasingly aware of the importance in understanding the relationship between educational activities and the facilities which house them. This awareness has proven extremely important in planning OVT facilities for Pittsburgh's comprehensive high schools.

Conclusion

Providing separate vocational and academic programs for those labeled "vocational" students is perhaps as unproductive for them as for any other segment of the population. Various disciplines in education tend to view students in very generic and puristic ways.

This probably has some bearing on the fact that education is viewed by some as beneficial for its disciplinary values. Possibly that is why one finds that controls are placed on students to measure up to certain standards in each discipline. In the past, too little attention was given to program synthesis while much attention was given to viewing the student's learning experiences as non-related or quasi-related learning functions. Such an orientation allows for more insight into the structure of the school district and its personnel than it does into the students to be served.

In addition, some academic education proponents suggest that the majority of students require heavy doses of prescribed academic experiences to prepare them for additional learning experiences. Unfortunately this orientation provides experiences which have little relevancy to seventy percent of the population of any school district. Students in less gifted segments of the population are often presented with a series of academic and, in some circumstances, vocational preparations that have little relevancy to the lives they will lead. Today, OVT in Pittsburgh is emphasizing the individual, flexible vocational education for an urban setting, the upgrading of the city's human resources, and newly constructed facilities. The implementation and management of a "new vocational education" might have been an impossible task during certain times in our history, but not today. Vocational educators must have the resources, both creative and monetary, that will enable them to carry on quality programs to prepare skilled manpower for this country and to take on a new task of providing a relevant education for all students in their constituency.

Such an approach will continue to take many in-service experiences and preparation to structure the curriculum, to implement programs, and to manage the individualized instruction needed to bring both the goal and the dream to fruition.

Designing Programs for Students Beyond Senior High School

By Paul Weatherly*

At the conceptual level, career education is neither a new idea nor "another gimmick of vocational educators to pump up the supply of auto mechanics," as one academic wag has suggested. Much of career education can be traced to the traditional goals and values that have long been associated with all of education.

But the thrust of career education is very new indeed and may offer a major breakthrough for education in the United States. This thrust is a redirection of our traditional goals into a creative delivery system through which an individual can achieve the maximum of his abilities, translating potential into productive service for himself and society as a whole. For the first time in American education, we may be working toward well-defined, well-accepted objectives for education--all education. If career education is to become in practice what its patrons envision in theory, it will benefit particularly the image and support of vocational education at all levels. No longer will vocational education be viewed as a stagnant backwater to the mainstream of education but will be instead the mainstream itself from which flows the central theme of all learning. This notion becomes especially meaningful when we consider the fact that by the end of this decade eight out of ten jobs will not require a baccalaureate degree.

Career education must emphasize simple, measureable goals that all levels of education will be working toward, namely: (1) that all individuals will have an employable skill whenever they are ready to leave school and/or (2) that schools will prepare individuals for the next highest echelon of education. Such goals must be intentionally basic, for there is an inherent danger that career education will become over-intellectualized at the conceptual level in order to sell academe on its credibility. The result will be esoteric generalizations to the point of confusion. While this danger seems most apparent at community colleges where an endless struggle between occupational and academic programs prevails, it is at these institutions where the concept of career education may have the most immediate chance to flourish into sensible programs, unencumbered by the barnacles of inertia commonly associated with high school and university offerings.

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What are the touchstones of successful comprehensive career education programs at post-secondary schools? Perhaps the most viable post-secondary occupationally oriented programs across the nation have followed the principle that job training to individuals below the professional level cannot become entrapped in the status-conscious world of academe. This means that the engineering technology instructors are not trying to prepare all transfer students for a school like M.I.T., and the drafting teacher isn't confusing freshmen with the stratospheric theories of Buckminster Fuller. Instruction in occupational curricula must be geared toward a defined career objective, or a compatible spin-off, without pretentiousness or unrealistic "collegiate" standards. Course content must concentrate on essential skills and knowledge required for on-the-job success, leaving as secondary and tertiary those desirable and "nice to know" subjects that are sometimes described as general education.

Second, the good career education post-secondary programs have been built upon the theoretical premises of high school vocational education that were never successfully put into practice. Two singular examples that come to mind are: (1) the working advisory committees organized to define skills for job entry, advise on equipment and programs, monitor activities, and assist with placement, and (2) the para-professional education idea. These concepts and many others were known years ago by secondary educators, but it took the leading community colleges to remove the theory from the shelf and apply it to the field.

Third, successful post-secondary programs typically do not attempt to emulate university-level procedures and programs in either concept or content. Two-year schools have benefited from the college image and name and by our growing recognition as institutions of higher education. Yet we have not adopted, for example, a hierarchy of professional personnel qualifications based on the models of secondary vocational education or the university; instead, we simply define the given position and select a competent faculty member to fill it without reference to his or her academic degrees or other formal education. Furthermore, this type of faculty is hired for teaching and counseling, not research and publishing as the university sees it.

Fourth, our career education programs must be adaptive enough to assimilate all students as they enter the post-secondary learning process and to offer constant upgrading and updating of education in retraining courses and refresher programs required by industry and business. Our goal in Delaware is to serve a minimum of four adults on a part-time basis for each full-time student. Programs may last one day, as do our leadership seminars, or two months, as do our special occupations courses that are shaped to the specific needs of a given company or business. Our delivery system must necessarily be flexible in the most comprehensive sense of the word.

Fifth, career education has altered the thinking of post-high school people in that we now give more consideration to those students who develop aspirations and goals beyond the institutional opportunities we present. And, our programs must reflect this change. We heretofore discouraged students who were interested in the bachelor's degree because we saw such inclinations as testimony to our failure. Counselors and faculty, while not attempting to change the goals of every student, are now nonetheless constantly alert to the student's emerging potential and his changing goal orientation. We accept as our responsibility the task of assisting students who seek advanced education.

Finally, those exemplary post-secondary career programs are ones that share a working reciprocity with high school vocational programs and area vocational-technical centers. With their own identity problems, community college administrators in the past have related to secondary programs in much the same manner as universities, which have treated the community colleges with snobbish condescension or indifference. This practice must cease if career education is to function with common objectives at all levels. Vocational-technical centers, high schools, and community colleges all have a unanimity of purpose with complementing emphases. University professors and primary school teachers should know what we are doing, and vice versa. We might for the first time have a cohesive system from kindergarten through graduate school working horizontally as well as vertically, that is, from the lowest skill development to the highest theoretical study.

We are developing something of this concept in Delaware with a multi-use, multi-jurisdictional educational complex on one site with contiguous facilities of a state college, a vocational-technical center, and a campus of the community college system. While autonomous educational programs will be created to maintain the integrity of individual identity for each partner institution, plans are made for extensive interaction of programs, services, faculty, and facilities that best help students in pursuing careers. The overall goal of such an educational consortium will be to create multiple-option models whereby the student could at any time in his training capitalize on spin-off opportunities such as a new job or new course without adversely affecting his total career planning.

Career education at the post-secondary level must return to basic, simple objectives that are understood and reinforced throughout a student's training. He or she should have opportunities to learn a career, secure employment, return to school later to upgrade or advance skills, or seek a new career altogether. Throughout the entire process we must eliminate the educational trivia that impedes learning while obscuring individual direction and must reduce the artificial barriers between institutions whose commonalities far exceed their differences. For those of us beyond the high school level, career education may be the light at the end of the tunnel.

Post-secondary leaders must have a vision of creating a dynamic, collegiate-level system of career education throughout the country and, in so doing, evincing more positive public understanding and support of technician-level vocations as honorable careers to which individuals can aspire with dignity and a sense of contribution reinforced by the community. The task is formidable, of course. But it is one which the nation as a whole must face to rid ourselves of vocational and intellectual elitism. In the now classic words of John Gardner, chairman of Common Cause:

> An excellent plumber is infinitely more admirable than an incompetent philosopher. The society which scorns excellence in plumbing because plumbing is a humble activity, and tolerates shoddiness in philosophy because it is an exalted activity, will have neither good plumbing nor good philosophy. Neither its pipes nor its theories will hold water.

Career Education in the Minford Public Schools

By Douglas Peterson*

When a parent in the village of Minford, Ohio, asks his child, "What did you do in school today?", he will seldom receive a pat answer. Instead, he may hear his third grade child respond, "Today we set up a production line and made paper, and I was in charge of quality control. You know, it's not easy being a supervisor."

The curriculum is changing, and it is largely a result of the Minford Local Schools' involvement in Ohio's Career Development Program. We began actively exploring the potential of career education during the 1969-1970 school year. In 1970 we received an initial grant from the state department of education to develop a career motivation program for kindergarten through grade 6. In January of 1972 we were granted additional funds to expand our program to include a career orientation program (grades 7 and 8) and a career exploration program (grades 9 and 10). Even in the brief period of time we have been involved in career education, we have made some very effective changes in both the curriculum and teacher attitudes toward learning.

Since our school is located in a rural area, our career development program differs considerably from its urban counterparts. We cannot rely on local business and industry to provide resource speakers and hands-on experiences. The closest large industries are in Portmouth, Ohio, and almost all of those industries do not allow students to visit for either insurance or security reasons. Consequently, most of our career programs' activities must be done within the schools in the form of simulations, role playing, and other methods of secondary exploration. This has necessitated extensive in-service preparation for our teachers who have, in most cases, graduated from college and returned to the schools to teach without experiencing the working world outside the field of education. Last year, our in-service programs sought to overcome these deficiencies by teacher field trips to industry where they could investigate the skills involved in several jobs. Upon returning to the school, many teachers began to plan learning experiences for their students related to what they had seen in the businesses. As a result, simulations are now being developed in the areas of home construction, medicine, hospital care, food services, and banking. Other industries have allowed us to develop videotapes of their facilities to be used when field trips are not possible or practical.

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*Mr. Peterson is coordinator of the Career Development Program, Minford Local Schools, Minford, Ohio.

In surveying our high school students, we have found that most of them intend to leave the Minford community upon graduation to seek employment in large metropolitan areas. We must consider this in developing our career program. It is our responsibility to prepare our students for urban living while, at the same time, point out that there are also occupational possibilities in the southern part of Ohio. All too often we have seen former students relocate in large cities with or without job prospects. Soon they become disillusioned with urban life and return to the Minford area to become underemployed. We must assist our students in preparing for urban life or find employment to fit their abilities in the local area. Presently, we are probing the possibilities of helping students establish new enterprises that are needed within the Minford community. It is conceivable that in the future we could initiate businesses in the schools and train students to operate them so that once they are profitable, graduating students can continue their operation.

Since our career orientation and exploration components are just in the introductory stages, we are giving them intensive attention this year. Our main goal is to utilize the cluster approach to break traditional subject barriers. The teachers have just completed three days of in-service training in which occupational clusters and their application to simulated experiences were emphasized. Many classroom activities are now being planned to integrate several subject areas with career investigation. For example, a wooded area near our schools may become the focal point for the students' discovery of the occupational cluster of environment. Science students will study the ecological systems of the area, utilizing approaches that are used by individuals in the field of conservation, while math students may prepare topographical maps so that a nature trail can be constructed. The natural features along the trail would be identified, and language arts students would produce trail markers to identify and explain each feature for younger students.

It is hoped that projects such as the one just mentioned can be developed for each cluster. This would provide actual experiences for all those students who wish to pursue specific clusters. At the same time, all teachers are restructuring their classroom lessons to include career concepts related to their subject areas. We believe we are progressing in the implementation of the entire career development program because our administrators and teachers are aware of its need and benefits and are willing to enthusiastically accept the massive challenge of redirecting their traditional curriculum.

Our career motivation program is well on the way to becoming completely integrated with the curriculum in kindergarten through grade 6. The philosophy of the program, which stresses the development of positive attitudes toward work and self-image, is not foreign to elementary and intermediate teachers. They have been doing this for a long time. Consequently, the main thrust of the program is to formalize this process so that it becomes a sequential attitude development program that is based on learning theory. Much of the in-service preparation we have done relates to the use of developmental and behavioral objectives to enable our staff to discover methods of fostering the growth of the children's awareness and appreciation of work concepts. In addition to the understanding relating to work, our main goal is to assist students in expanding their awareness of themselves. Presently, we are instituting Glasser's classroom meeting approach, coupled with the "Developing Understanding of Self and Others" approach and SRA's "Focus on Self-Development" series. Through the use of these methods in the primary levels, we are responding to the students' social and individual development to build feelings of success and personal worth.

Because the career motivation program is directed toward self-development and the introduction of basic work concepts, its implementation in rural areas does not differ significantly from urban programs. The one problem that is unique to rural districts is that the students are often experience-poor regarding seeing people work in a variety of professions. In urban situations children observe construction workers, street repair crews, policemen, firemen, door-to-door salesmen, store owners, etc., while rural children may only see their parents, who work around the house, and a limited amount of other workers. In compensating for this, we provide field trips to cities to see full-time firemen (all we have are volunteers) and other workers the students read about in their school texts. Simulated experiences have also been successfully used on the elementary level. Two of our most complex projects were a paper-producing unit done by intermediate special education students and a relief map constructed by 125 sixth grade students. Both of these projects were superb examples of career education in that they integrated the philosophy of the career program with all of the school subject matter.

The map project is interesting in that all the decisions were made by the students. They devised production lines to manufacture trees and to cover the map with paper-mache. They found methods of increasing production with no loss of quality and experienced many job-related conditions. During this project, discipline problems decreased, group interaction increased along with group decision-making, and student enthusiasm was tremendous. This was especially true with the formerly under-achieving students.

We realize we have only touched the surface of career education, but we are beginning to discover its full scope and successful methods of implementation. In the above comments I have stressed the flashy, tangible results of our career development program. However, the more important results are the fresh attitudes and new insights of our teaching staff. They cannot be precisely measured but will have a profound effect upon students as they shape their values and skills for the future.

From Exploration to Vocational Education

By R. Thomas Scherer*

"Nothing is as powerful as an idea whose time has come." When Victor Hugo made this observation he might have been thinking about career education and the 1970's. The time for career education is now.

Three years ago the Toledo Public School system initiated the career concept in one school. The following year two more schools had it, and this year fifteen schools will be career-oriented. We believe in it.

My remarks at this conference will be confined to the grades 9 and 10 exploration segment of career education and some of the vocational programs that we in Toledo consider different and special. As vocational educators, I am sure you will be interested in these aspects of career education.

Career exploration has four important features:

1. It is intended for all students in grades 9 and 10 on a regular basis.
2. All teachers are a part of career exploration.
3. It is experience-centered.
4. Industry and the community are heavily involved.

Career exploration does not mean vocational education. Every student explores many careers and experiences several of them. No attempt is made at this time to direct or counsel; rather, it is an opportunity for students to learn what is open to them, what is required to be successful in various careers and occupations, and what they are all about.

I would like to elaborate on the four points mentioned previously.

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*Mr. Scherer is executive director of vocational and adult education, Toledo Public Schools, Toledo, Ohio.

Career exploration must be for all students enrolled in grades 9 and 10. Opportunities that provide a wide range of experiences should be made available to them. In Toledo, boys in grade nine can enroll in four different shop programs on a quarterly basis. In addition, they may explore opportunities in the business and home economics departments. Girls, too, may choose from many areas or programs. Again, the important point is that all students in grades 9 and 10 participate in a meaningful program of exploration.

All teachers of grades 9 and 10 must be a part of the program, and they must be enthusiastic about it. Each one has an important function.

Science, math, English, as well as all other subject areas, are a part of the exploration process. Each one is responsible for a particular segment of careers. Generally, the careers most closely related to a subject are the ones that are included. The program is arranged in a manner that permits each student to participate in 135 to 150 hours of exploration in both grades 9 and 10.

In addition to providing career information through the curriculum approach, teachers provide live experiences in the classroom by various methods. Included are activities sponsored by business and professional groups, such as mock trials conducted in the schools, workshops sponsored by the Federal Bureau of Investigation, and many others.

It is extremely important that teachers be involved in the organization and planning of the program. It should not be assumed that a program can be developed and implemented without teacher input. On the contrary, we have found that it will work no other way. Extensive in-service must be provided during which teachers can have a part in developing materials and projects that are suitable for classroom use in career exploration. Teachers are also instrumental in locating and recommending materials that can be purchased and utilized. In short, most aspects of the program are designed by the teachers and are accepted by the teachers.

Of major importance to the exploration program is the fact that it is experience-oriented. All students in the program have an opportunity to spend time in industry and business on careers of their choice. For example, a boy may choose to spend a day in a plant with a tool and die maker. This he can do. Each student can choose several experiences of this nature.

The National Alliance of Businessmen (NAB) has played a large role in the program. Through its cooperation and direction, many large and small industries and businesses have adopted the career exploration program. It is through this arrangement that the students are scheduled into industry.

I do not know of any programs that require as much community involvement as the K-10 segment of career education. The success of the program does, in fact, depend on how completely you work with the entire community. In Toledo, we have more than 11,000 students in the K-10 program. Consider the number of speakers, field trips, parents, and industries required to implement a program of such magnitude.

It is imperative that the school system use the community and industry for planning purposes, prior to initiating the exploration program, in the same manner that teachers must participate. Industry can only accept what its structure will permit.

Career exploration does not terminate the whole career education concept; it is only the beginning. A school system must have at its disposal a wide range of educational opportunities to meet the needs generated by the career exploration process, and it must provide education beyond high school for those who want it.

Vocational education cannot confine itself to the types of programs it has had in the past. Efforts must be made to reach out and serve those who have special concerns and problems. This is not to say that we would change emphasis; rather, we should expand our horizons and include areas that have not traditionally been considered the responsibility of vocational education.

We must consider the 14- and 15-year-olds who are not making it; the 16-year-olds for whom dropping out is around the corner; those boys and girls who cannot adjust to school and society; and those disadvantaged and handicapped who need more than the usual approach. We must provide for them. These young people will mature and will be with us for better or worse. As vocational educators we can make it better.

Career Orientation

By Nicholas Topougis*

Many of you have been very much involved in establishing and implementing career education programs based on guidelines developed around your own needs.

The Akron Public Schools, in establishing career education, adhere to the definition and concept as outlined by the state department of education. Career motivation in grades K-6 has provided pupils an insight, motivation, and awareness toward work as its objectives. In career orientation in grades 7-8 students are provided opportunities to explore many of the fifteen clusters. In the exploration phase, students are provided opportunities to explore in depth selected career clusters based on their aptitude, interest, and occupational selection.

We in Akron share similar needs with other parts of the state and nation and have some that are unique to Akron. I won't belabor the needs and rationale of career education since I'm sure you have heard them time and time again. However, I would like to stress that Akron is currently witnessing a change. The rubber industry, the local mainstay, is moving elsewhere, while service-oriented jobs are increasing at even a greater pace. Presently, seven of our high schools are offering comprehensive curriculums with many vocational offerings. There is a vital need in exposing both staff and students to these new additions. Many of our students are enrolled in college-prep programs without plans for advancing to college. The unemployment roles, as in the rest of the country, are highest within the teen-age groups. Industry tells us that young employees do not have the proper attitude regarding work and that they lack the incentive of doing an honest day's work. I could go on and on with these needs, but our time is limited.

Our program presently includes four elementary, five junior high, and two senior high schools with a total enrollment of 9,800 students in grades K-10. Our structure is such that the high schools act as the cluster group with feeder junior and elementary schools involved in the career programs. As we expand, among first considerations will be the completion of present high school clusters in operation.

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*Mr. Topougis is director of career programs, Akron Board of Education, Akron, Ohio.

In addition to our K-10 efforts, a program has been developed for college-bound students in grades 11 and 12 that we hope will break the traditional pattern of the college prep program. The pre-professional cluster program is segmented into four professional clusters to include: health and medicine, engineering and science, communicative arts, and social sciences. The program places heavy emphasis on individualized instruction and the student's responsibility for utilization of time. Scheduling and program offering will be patterned along the vocational education structure providing laboratory work and cooperative career activities with local agencies.

Four Components

Four major components make up our present career model. The teachers are the key facilitators in that they integrate within the present curriculum structure concepts that relate to the world of work, utilizing supplemental guides, commercial career material, and highly structured field trips and speakers. Supporting the teacher in this effort is a career specialist assigned to each of the buildings.

Guidance, the second component, prevails at all levels. The OVIS and GATB are utilized as major tools to determine interest and aptitude patterns. Group counseling and value clarification play a vital role in helping students gain a greater awareness of self.

A third component, the local community, provides the opportunities for youngsters to obtain field observations that cannot take place in the classroom. More than 800 consultants are utilized in our career efforts. In addition to these individuals, many community groups and agencies open their doors for students to work on a one-to-one basis with their employees. Attempts are now under way to have AAPGA, a local school, and industrial organizations to sponsor even greater cooperative efforts. The National Alliance of Businessmen is coordinating industrial firms with our school to provide further in-depth exploration of specific careers. Parents, as the fourth component, are utilized in advisory and program implementation capacities. Many of the resource personnel called upon are parents. Mini-courses are provided in the evenings in which our career specialists conduct classes designed to expose parents to many occupational opportunities available to their children.

Grades 7 and 8

From this point, I will attempt to stress our career education efforts in grades 7 and 8. Our program goals are to provide a more relevant, positive learning environment that will reduce dropouts, enhance learning, and result in positively oriented youth ready to accept an adult role.

The program involves 4,358 students and 175 teachers. Three approaches to education are found within the five junior high schools. They are: (1) traditional schedule, (2) unified arts schedule, and (3) middle school team teaching schedule.

Although the techniques of teaching vary in each of these approaches, career education and its concept function well within each of the structures.

Under the traditional schedule, teachers integrate concepts related to careers within their classroom activities. In addition, each subject area is responsible for exposing students to specific content related to job clusters at each grade level, e.g., social studies is responsible for the transportation cluster in grade 7 and marketing and distribution in grade 8. This system was adapted to assure that students obtain exposure to what is considered vital in each of the fifteen clusters.

The entire curriculum development for our career efforts was designed by the teaching staffs involved in the program. Supplemental guides have been produced in which suggestions are outlined related to career activities. In addition, supplements have been added for each subject area, focusing attention to specific information related to the fifteen clusters.

We believe very strongly that in order to know the world of work pupils must witness its operation. Mini-vans assigned to each school provide flexibility and mobility in moving students accompanied by their classroom teacher into industry and business in small groups. Last year more than 1,000 visitations were conducted, and that number is predicted to rise considerably this year. All the visitations and classroom presentations are highly structured by the classroom teachers and must be integrated within the subject area. Akron Public Schools have for many years shared an extremely good and close relationship with the local community, which has made our career program a joint effort between schools and industry.

The best career education occurs when a teacher or a teaching staff tailors a program to meet their needs. At Perkins Junior High School, a unified arts program was begun. Instead of taking shop, music, home economics, and art on a semester basis, all students went through a sampling process, spending one week receiving basic skills in each of these areas. After this period, students selected their three favorite areas for concentrated study. We called the program Super Arts.

A mass production unit was planned for the last ten weeks of school. All 400 students in grade 8 were put into companies of about twelve students each. Each company selected a name and a product to be mass-produced and set up an assembly line. The teacher served only as an advisor. When personnel problems arose, companies were advised by social studies teachers. Lessons were taught in the regular social studies classes on the industrial revolution, current labor trends, labor relations problems, etc. One young teacher developed the lesson so well that the whole company went on strike. But the dispute was quickly settled. Each company was responsible for keeping records of all financial transactions and a complete financial statement. Math teachers advised companies in these matters.

Some of the company names were, "The Howard Street Hattery," "Perkins Perky Pizza," "Silver Finger," and "Fabulous Flowers." Companies were able to visit a similar real life company in the community to see how things are done professionally. The production chiefs from each company visited an industry in the community to observe the workings of an assembly line.

The unit was culminated with a trade fair to which parents and members of the community were invited. Originality, fun, understanding of the workings of industry, the interdependence of workers, group decision-making, responsibility, good work habits and attitudes, a feeling of worth, the importance and dignity of all work, exposure to several different jobs--these were only a few of the benefits derived from this team effort. It will be tried again this year--only bigger and better!

Evaluation

This past year an attempt was made to conduct a comprehensive third-party evaluation of our career program to determine whether we were reaching our program objectives. We were pleased to see that significant changes did take place in four major areas:

1. The students' ability to see the relationship between school and future occupational interests increased.

2. Their knowledge of occupational information increased.

3. They gained a more realistic view of the world of work.

4. They retained their observations and experiences related to career exposures.

We are looking forward to the next school year to improve our present technique in program implementation, to continue preparing new staff, and to reinforce the already existing program with improved activities.

section five:

Current Research on Leadership for Career Education and Vocational Education

Research in Progress on Career Education Models

By A. J. Miller*

When one examines the social context in which we must survive and function as citizens in this country, we see that there are many roles that we must fill. Some of these roles are the roles of family man, economic man, leisure man, spiritual man, aesthetic man, political man, etc.

If we are to be self-actualized and productive citizens, some social mechanism must prepare us for these roles as they are appropriate for our needs. In many cases, this isn't being done. Either the social mechanism (formal or informal) doesn't exist, or if it exists, it isn't available or functioning.

Career education is one of the present priorities of the Department of Health, Education and Welfare. Career education is concerned with providing tested alternatives for preparing both children and adults for the essential life roles that one fills in his "career" of life. How then does career education differ from a "good" education system that might prepare a person for the needs of life? In a sense, it really doesn't differ in that most of its concepts have been promoted, tried, or discussed during the past thirty years. It does differ, however, in its delivery system. The U.S. Office of Education points out this difference as follows:

> The difference comes in the fusion of the academic, vocational, technical, social, political and artistic areas--and all the rest--for all students; not the mere availability of several tracks. Career education is best characterized as "comprehensive." (U.S.O.E., 1972)

It is apparent that there are not enough resources at any governmental level to adequately develop new and better social and educational systems that will address all of the life role needs of man previously mentioned. And furthermore, this probably isn't necessary, as some of these needs are being met better than others. However, one of the life roles that the schools and society have traditionally dealt with least well has been the preparation of the "economic" man; that is, preparing man for his work role in society. While career education is concerned with the multiple life roles of man, for the purposes of the present national career education thrusts, special attention and emphasis is being placed on the "economic" man.

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Defining Career Education

As previously stated, career education is not a radically new idea on the American educational scene. Rather, it is an evolutionary concept with many historical antecedents. Its philosophical bases can easily be traced back to the 1800's.

However, career education is not a mere repackaging of existing educational programs under new titles. It is a synthesis of the best of existing educational practice within a new educational rubric encompassing career development.

While there are many characteristics of career education that have been identified by researchers and practitioners, there has been no uniform definition of career education that has been overwhelmingly accepted and there is little likelihood that this will evolve within the near future.

During the early conceptualization of the career education thrust by the U.S. Office of Education, four different definitions were tested among various professional groups for their reactions. In essence, these definitions were as follows:

1. Career education is a concept that educational experiences should center around careers in the economy in which people live. It encompasses the educational experiences from early childhood through the productive life of the individual.

2. Career education is the infusion of all educational curricula and student counseling in grades K through 14 of information and hands-on experience pertinent to real life jobs and world of work experience. The main thrust of career education is to prepare all students for successful "life of work" by improving the basis for occupational choice, by facilitating the acquisition of job skills, and, most important, by enhancing educational achievement in all subject areas and at all levels by making education more meaningful and relevant to the aspirations of students.

3. Career education is the development of motivational attitudes and interests in the world of work, knowledge of the world of work, and the skill necessary to function and to continue functioning in the world of work.

4. Career education is an educational delivery system, including all levels of education, designed to provide the necessary learning experiences for every person that will permit him to attain his individualized goal of occupational readiness and societal responsibility at a level commensurate with his ability and desires.

While all of these four definitions have commendable points and attractive overtones, none is totally acceptable for achieving the goals of a truly comprehensive career education system.

Proposed Tenets

Career education is an extremely complex grouping of educational concepts and has not been clearly defined. However, the following tenets are proposed for an operational career education definition.

1. Career education is a comprehensive educational program focused on careers. It begins with the entry of the child into a formal school program and continues into the adult years.

2. Career education involves all students, regardless of their post-secondary plans.

3. Career education involves the entire school program and the resources of the community.

4. Career education infuses the total school curriculum, rather than providing discrete, high-profile career education blocks forced into the curriculum.

5. Career education unites the student, his parents, the schools, the community, and employers in a cooperative education venture.

6. Career education provides the student with information and experiences that represent the entire world of work.

7. Career education supports the student from initial career awareness to career exploration, careers direction-setting, career preparation, and career placement and provides for placement follow-through, including reeducation if desired.

8. Career education is not a synonym for vocational education, but, vocational preparation is an integral and important part of a total career education system.

Four Career Education Models

During 1971 and 1972, the National Center for Educational Research and Development (NCERD) in the U.S. Office of Education initiated a research and development program that included four major career education projects or models. These projects were started to conduct feasibility studies and to identify and develop several alternative educational strategies or social interventions that showed promise for delivering on the multiple life role needs of people (career education) with emphasis on the "economic" role preparation of the individual. The four models initiated were:

Model I: A School-Based Career Education Model

Model II: An Employer-Based Career Education Model

Model III: A Home/Community-Based Career Education Model

Model IV: A Rural Residential Career Education Model

Model IV: A Rural Residential Model

In 1962, the Glasgow Air Force Base, located at Glasgow, Montana, began operation as a Strategic Air Command installation. In 1968, a rearrangement of defense spending priorities necessitated its deactivation and closing. A variety of uses for the available facility were proposed, and it was decided that it could most profitably be used in some educational context. This context was to be a Rural Residential Career Education model. The Mountain-Plains Education and Economic Development Program, Inc. (MP) was funded by the U.S. Office of Education and located at Glasgow Air Force Base as one of the four national career education models.

The major purpose of this model is to assist rural families of low employability potential in improving their chances for employment and achieving greater satisfaction as a social participant. The program is for families in a six-state region of Idaho, Montana, North Dakota, South Dakota, Wyoming, and Nebraska. The families selected for the program are those who have not been able to share equally in the socioeconomic benefits of their home regions because of their lack of education and training. In February 1972, twelve families were enrolled in the program. By the end of June 1972, sixty-five families were enrolled. The program is being designed to ultimately accommodate 200 families at any one time, and this figure should be met by January 1, 1973.

Families selected for the program are provided free transportation to Glasgow, Montana. After arrival, they receive an orientation and an individually designed program is developed for each family. This program is called a "prescription." The prescription is based upon information from individual interviews, personal data, interests, needs, aptitude data, and availability of facilities and activities. These prescriptions are changed as the families' needs change during their progress through the program.

The vocational preparation program in this model includes preparation in the occupational areas of tourism, health, and public services. There are six instructional "cores" that have skills common to the three occupational areas. The cores are business and office, mobility and transportation, food services, facilities management, facilities operation, and educational and social services. These programs are designed to equip the participant for various levels of entry into an occupation. They do not necessarily qualify the person for the ultimate job that he desires; rather, they enable him to enter at a level of competency that, coupled with further education, may qualify him for his ultimate occupational goal.

As part of the program, participants are exposed to a program that will lead them through occupational awareness, exploration, and preparation. In this program the participants are not allowed to select a specific skill preparation program until they have completed a program of awareness and exploration.

An important aspect of the rural-residential model program is the concentration on the family. The program provides counseling, recreation, and home services for the families. Counselors work in teams with each family to coordinate their activities in the entire program. Services are provided that will give families training in home services such as money management, sewing, home care, home planning, food and meal planning, consumer education, creative hand work, personal grooming, and physical fitness. Also available is a program for meeting health needs and providing health education.

The average amount of time spent by a family in a program will be one year. Upon completion of the program, assistance will be provided in finding jobs for which program participants will be qualified. If necessary, assistance in relocating to the new job will be provided. Once families are relocated, follow-up by existing state office staffs will be provided, where needed, for the families.

Model III: The Home/Community-Based Model

The Home/Community-Based Model program is a career-oriented approach to enhance the employability and career options of out-of-school adults. This model is actively considering the use of mass media, referral centers, individual counseling, and the use of community resources in working with out-of-school adults. This program will assist adults in identifying their aspirations and in matching their capabilities, experience, and motivation to select and progress through an appropriate educational program.

The objectives of this program are to increase the employability and career options of out-of-school adults.

The primary strategy for reaching the adult population will be through the mass media. Once adults are motivated through the mass media, agencies and programs must be set up that can handle the needs of these adults. These needs include central screening, counseling, training, and placement. This necessitates working with employers and other national, regional, and local organizations that will participate in the guidance and operation of the program.

This program will attempt to use mass media to attract the attention of the adult population to the program, to assess the career education interests of the target population, to provide the target group information about existing career education alternatives and resources, and to provide, where appropriate, skills related to engaging in career education.

This Home/Community-Based Model is envisioned as an activity that will be used to coordinate the efforts of existing agencies whose goals are consistent with career education to reach adults and address their career development needs.

To date, most of the progress has been in the form of feasibility and planning studies. Based upon these feasibility studies, the design for pilot implementation will begin.

The Education Development Center (EDC) of Newton, Massachusetts, has been designated the prime contractor for this model. It has established criteria for a target area selection of the pilot program. One area selected for the pilot test is Providence, Rhode Island. A program in that area will be established in the fall of 1972.

Plans for the future include the continued participation of EDC in further conceptualization and planning and the participation of other educational laboratories in the field test of the Home/Community-Based Adult Career Education programs.

The Southwest Cooperative Educational Laboratory in Albuquerque, New Mexico, is presently involved in planning for a Model III test site in Albuquerque by late spring 1973. This site will rely heavily on the work completed by EDC in testing the model with sophisticated television and satellite equipment.

Model II: Employer-Based Career Education Model

The purpose of the Employer-Based Career Education Model is to provide teen-age students with an optional "out-of-school" program. This program is designed for alienated and unmotivated students by providing them a real option to the existing educational system. However, it should be pointed out that this model program is designed to provide an option for all students. This program is intended to provide a set of personalized education experiences to secondary school students who choose this alternative. Specifically, the program is an attempt to provide specific learning experiences within the curriculum, either existing or ideal, and to locate actual work or adult activity situations, managed by employers, in which students can learn these specific elements. The program is to be composed of all of the life skills that one needs--curriculum--both academic and vocational

While the program is an alternative to the existing high school, it will provide experiences that meet the criteria for high school graduation.

The program will be operated by a consortium of businesses and other organizations, both public and private.

In the design and implementation of this out-of-school alternative to career education, a number of fundamental problems have confronted the contractors. These are:

1. Business and industry are not equipped to educate, they are not academicians.
2. Employers do not wish to cause a rift between business and education.
3. Business and industry feel that young people are undisciplined and uninterested and that, furthermore, it may be too early for them to choose a career.
4. Employers question their involvement because educators are being paid to do the job.
5. Employers are in business to make a profit and this program offers them no economic advantage.
6. Labor unions feel that the program may be counter-productive to their apprenticeship programs.
7. There are legal implications involved in employing students below a certain age and paying students in a training situation.

At the present time, four organizations have contracts to independently develop Employer-Based Career Education Models. These contracts are being pursued independently in an effort to develop independent alternatives within the Model II concept. These organizations are Research for Better Schools (RBS), Inc., Philadelphia, Pennsylvania; Farwest Laboratory for Educational Research and Development, Berkeley, California; The Northwest Regional Educational Laboratory, Portland, Oregon; and the Appalachia Educational Laboratory, Charleston, West Virginia.

Three of the Model II contractors are working with the public school systems in their areas to provide a base for the academic component of the model. Although the approaches and arrangements with the school systems are somewhat different, these systems are involved in the offering of course work and the granting of credit toward high school education.

The one exception to this approach is Research for Better Schools, Inc., in Philadelphia. Although RBS has the cooperation of the Philadelphia Public School System and the Philadelphia Parochial School System, the organization felt that it was in the best interest of the project to offer the academic program outside these school systems. The main purpose for this action was that guidelines called for the locus of control for the model to be outside the existing school system. This guideline would be in conflict with the local board of education policy, which legally gives it control of the school system. Therefore, RBS has established an academy for career education. This academy is a nonprofit corporation with a board of directors representative of the various communities within the model area. The academy provides a mechanism for program control by RBS and allows the granting of high school credit for program participants.

All the contractors on the Model II program are proceeding with their work in anticipation of accepting students during the 1972-1973 academic year. Since the laboratories are working separately, progress on all phases of the basic concept is not uniform. Research for Better Schools anticipates beginning its program with 100 students in October 1972. The Farwest Laboratory for Educational Research and Development presently has ten students in the program and plans to have fifty by September 1972, with a total of seventy-five by January 1973. The Northwest Regional Educational Laboratory expects to have twenty-five students in September 1972. Its goal is fifty students by February 1973. The Appalachia Educational Laboratory will have approximately twenty-five students participating during the late fall of 1972.

All of the Employer-Based Career Education Model programs have a common program format in that the programs provide both the career skill development in real life occupational settings in business and industry and in the related academic training in the educational setting of a school.

The original conception was that the academic programs could be offered along with the skill training in the plant or office of the business or industry. Further investigation and study has indicated, however, that this is unrealistic--at least at the present time. Most businesses and industry are not geared to provide the related academic preparation and do not wish to be responsible for this component of the program. Hence, academic education must be offered in a conventional school setting or under some sort of separate educational institution. There seems to be a consensus that this training can eventually move to the location of the employer, so that the total program can be offered as a true and separate alternative to the public school system.

Model I: The School-Based Comprehensive Career Education Model (CCEM)

The purpose of the School-Based Comprehensive Career Education Model is to use the existing school system as a delivery system for achieving the goals of career education. Its purpose is to develop, test, and install a career education system with the potential of revitalizing the total educational program of a public school system by structuring student experiences around career development objectives.

In May 1971, The Center for Vocational and Technical Education (CVTE) at The Ohio State University was awarded a grant for the development of a School-Based Comprehensive Career Education Model. The guidelines in the grant stipulated that the model was to be directed by CVTE as prime contractor and developed and installed in several local education agencies (LEAs) to be selected at a later date.

The U.S. Office of Education implemented a system to solicit nominations for LEA field development sites. Fifty-three candidates were identified by the U.S. Office of Education and were screened and visited through a systematic selection procedure.

On August 9, 1971, the U.S. Office of Education selected the following six LEA sites: Atlanta, Georgia; Hackensack, New Jersey; Jefferson County, Colorado; Los Angeles, California; Mesa, Arizona; and Pontiac, Michigan. Each LEA was provided with a CVTE resident project team to offer technical assistance on site consultation and to provide a direct liaison with CVTE. CVTE, as the prime contractor, supervises individual LEA subcontracts and is accountable to the U.S. Office of Education for the entire program and for all funds expended.

A Capstone Effort. The initial planning information provided to The Center for Vocational and Technical Education indicated that a "capstone effort" would be an appropriate strategy for conducting this developmental project. That is, it was assumed that there were many tested career education curriculum packages and support systems within the selected LEA sites that could be exchanged to form a tested and transportable career education system. The contractor then would have to supply a "capstone" of professional advice, expertise, and developed materials to finish the model.

The assumption that an adequate supply of tested career education materials existed was false. It was found that there were few materials that satisfied both the needs of career education and the need for validation to a degree that they could be transported to other school districts within the consortium. This meant that either new career education curriculum materials and support systems had to be developed or a search would have to be conducted to find these materials that might exist at other locations throughout the United States. The strategy of searching for materials outside of these six districts was selected. The strategy of the project was then to conduct a national search for career education materials, to review these materials and revise them where needed to develop appropriate supporting systems and services for the field test and installation of these materials, to package these materials and provide these transportable packages to other districts throughout the United States that had an interest in career education.

During the fall of 1971, a subcontract was let by CVTE for a national search for noncommercial career education materials. The search collected more than 1,000 career education or career education related curriculum units and materials. These materials provided the basis for the program that is presently being refined and tested.

A Career Education Matrix. After it became apparent that career education materials did not exist in either quantity or quality to provide a transportable package that would be acceptable by all participating project LEAs, it was necessary to construct a paradigm that could be used to operationally describe career education and provide a conceptual screen for selecting curriculum materials to form a cohesive career education program. This paradigm was constructed in the form of a career education matrix that identifies eight essential elements of career education along one axis of the matrix and the grade levels from kindergarten through grade 12 upon the other axis. Within the cells of this matrix, learning goals and performance objectives were developed. The resulting matrix contains 1,500 goals and 3,000 performance objectives. The matrix presently is the conceptual framework around which the present School-Based Career Education model is being developed.

Project Organization. The Comprehensive Career Education Model project is organized to provide not only transportable curriculum packages or units, but also transportable systems that will enable other adopters to install and conduct career education programs within their districts. The project is organized into the following development groups: curriculum, personnel development, guidance and placement, support systems, evaluation, and community involvement.

The curriculum group is responsible for working with the LEAs in selecting appropriate career education curriculum materials or resources and refining these materials into units that are less than twenty hours in length. The majority of these units are designed to be "infusion" units. That is, they are designed to be infused into the existing school curriculum and not to be taught as "stand alone" curriculum packages.

In the six participating local education agencies, there are more than 3,600 teachers and administrators participating in the CCEM project. The purpose of the personnel development group is to work with the LEAs in designing, testing, and implementing appropriate in-service personnel development programs that will prepare teachers, administrators, and support personnel for the installation and operation of career education within that school district. These in-service development programs result not only in trained personnel within the districts, but also in published guidelines and syllabi for use in training career education personnel in other districts.

The guidance and placement program unit has two major objectives: (1) to delineate roles for guidance personnel in relation to other career education components, and (2) to design, develop, and test guidelines for installing and operating the special placement services for students. The School-Based Career Education model is committed to providing a placement system which is appropriate for the placement of all students who exit the school system.

The support systems unit is responsible for gathering, analyzing, storing, and disseminating information required for the delivery of career education and for the effective management of the career education process. This component is developing systematic methods for organizing and classifying student data, instructional career information, educational resources information, and placement information.

The evaluation group within CCEM is responsible for the development, implementation and analysis of formative (internal) evaluation procedures. The prime function of this group is to evaluate curriculum units and the supporting career education systems as they are developed and refined. The final (impact) evaluation or summative evaluation is conducted through a contract with an external evaluator.

The community involvement unit of the Career Education Model is charged with the responsibility of (1) incorporating community resources in the development and implementation of career education; (2) keeping the LEA communities informed of the progress and implications of the CCEM project; and (3) supporting the LEAs in the development and implementation of a community involvement program.

Progress to Date. During the 1972-1973 school year, it is anticipated that approximately 100 curriculum units will be field tested in the six local education agencies cooperating in this project. These units will be tested in 114 school buildings at all grade levels. The majority of the 84,500 students in these participating CCEM attendance areas will be exposed to new career education curriculum units or some facet of career education. As the project moves into subsequent years, more students will be exposed.

Before these units will be installed in the participating LEAs this coming year, all of the schools' administrators and participating teachers will have completed some level of career education orientation or in-service training. This is true of other professional personnel within these CCEM districts who are working with some component of the project.

Present projections indicated that besides the career education curriculum units being developed during the coming year, approximately 50 supporting documents which describe and provide guidelines for the implementation of supporting systems and services will be completed. Upon completion, these documents will be made available through the national ERIC system.

Future Directions. During the past year, the federal monitoring of the School-Based Career Education Model has been transferred from the U.S. Office of Education to the new research arm of the Department of Health, Education and Welfare called the National Institute of Education (NIE). Indications are that the goals and priorities of NIE will be in the area of more deliberate and rigorous research and development as opposed to action/demonstration projects. It is anticipated that after fiscal year 1973, the Comprehensive Career Education Model project will concentrate resources upon a more deliberate effort of curriculum and systems development based upon rigorous research and development data. This does not imply that field test and installation will be minimized. However, some of the fundamental research questions which are inherent in the concept of career education will be systematically addressed and hopefully provide answers upon which higher quality career education materials can be developed and installed.

Reference

U.S. Office of Education. "Career Education Research and Development Program: A Working Paper." Washington: The U.S. Office of Education, June 15, 1972.

Changing Roles and Functions in State Vocational Education Agencies

By Daniel E. Koble, Jr.*

State divisions of vocational education will be expected to provide more and better leadership in the decade of the 70's. The current emphasis on career education demands that personnel with a background of experience and know-how in this area guide all of education as it changes to meet the needs of society.

Koehn[1], a past president of the National Association of State Boards of Education, said, "There is a definite need for the development of strong leadership at all operational levels--and since education is initially a state responsibility--especially at the state level. The state must take steps to furnish effective leadership that will encourage programs required to meet the needs, first at the local level, then at the state and national levels."

The Center for Vocational and Technical Education at The Ohio State University has had a long interest and a deep commitment to leadership development in state divisions of vocational education. Taylor[2], director of The Center, calls state vocational education leadership development "one of the continuing concerns of The Center."

Vocational education, in its present catalytic role for career education, requires dynamic and viable leadership. To provide this, leaders require futuristic preparation and continuous upgrading. Present programs for the preparation and upgrading of leaders appear to be inadequate in view of projected needs. A primary reason for this has been the lack of a dynamic knowledge base regarding the roles and functions of leaders, competencies required for performance, and tools and materials needed to effectively perform position requirements.

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[1] Emil A. Koehn, "The State Leadership Role in Vocational Education," *American Vocational Journal*, Vol. 45, No. 7, October 1970.

[2] Robert E. Taylor, in *The Emerging Role of State Education Departments with Specific Implications for Divisions of Vocational-Technical Education*, ed. Dick C. Rice and Powell E. Toth. (Columbus: The Center for Vocational and Technical Education, The Ohio State University, 1967).

In March of 1972 The Center for Vocational and Technical Education began a longitudinal study dealing with the changing roles and functions of leadership personnel in state vocational education agencies. The first part of this study has been largely concerned with the problem of constructing an improved and expanded knowledge base upon which the development of programs and materials to prepare and upgrade state leadership personnel can be founded. In short, we need to take a look at "how it is out there." It is also anticipated that this information will eventually serve as a basis for designing future needed research and may sometime be used as criteria for assessing and revising programs.

One segment is concerned with a demographic survey of leadership in state vocational education agencies. All fifty-six state vocational education units were sent Sections I and II of the survey instrument. At the time this report is being prepared, forty-one units (seventy-three percent) have returned their completed questionnaires. The results reported are based on this partial return. The incomplete preliminary data will be presented in tabular form with appropriate comments and observations for each table.

It is anticipated that a continuing effort will be made to update and revise the data each year. States are encouraged to request that additional data be included in the request if they feel a need for expanding the base.

TABLE 1

STATE VOCATIONAL EDUCATION UNITS RESPONDING TO THE DEMOGRAPHIC SURVEY

Status	Number	Percentage
Yes	41	73.0
No	15	27.0

TABLE 2

STATE DIVISIONS OF VOCATIONAL EDUCATION THAT HAVE INDENTIFIED JOB CLUSTER POSITIONS IN VOCATIONAL EDUCATION

Job Cluster Titles	State Department Reporting			
	Yes	Percentage	No	Percentage
State Director of Vocational Education	41	100.0	0	0.0
Assistant State Director of Vocational Education	31	76.0	10	24.0
Supervisor of Vocational Instruction Services	41	100.0	0	0.0
Supervisor of Vocational Personnel Development	28	68.0	13	32.0
Supervisor of Vocational Research and Planning	35	85.0	6	15.0
Supervisor of Vocational Finance	29	71.0	12	29.0

The title of state director of vocational education was the term most commonly used to designate agency heads. Half of the responding states had more than one assistant state director. The greatest variation in specific titles reported occurred in the cluster "supervisor of vocational instruction services." Titles most frequently mentioned were: consultant, chief, educationalist II, educational program administrator, head supervisor, coordinator, and associate. Director of the research coordinating unit was the term most commonly used for personnel heading research and planning.

The range of total professional personnel employed in state divisions varied from a low of seven to a high of eighty-two.

States report having a moderate degree of problems in obtaining personnel to fill vacancies. The position of state director was listed by sixteen percent of the states as being most difficult or a major problem.

TABLE 3

VACANCIES EXISTING IN STATE DIVISIONS OF VOCATIONAL EDUCATION AT THE TIME OF REPORTING

Job Cluster Titles	Number of Vacancies
State Director of Vocational Education	0
Assistant State Director of Vocational Education	1
Supervisor of Vocational Instruction Services	78
Supervisor of Vocational Personnel Development	7
Supervisor of Vocational Research and Planning	23
Supervisor of Vocational Finance	4
TOTALS	113

The states reporting indicated they anticipated adding an average of six new positions by the year 1977.

Inadequate state salary schedules were listed by twenty-five states as the most persistent deterrent to the hiring of qualified personnel. The second most often mentioned deterrent was the inability to locate personnel with broad experiences. Table 4 shows the problem areas faced by states in securing new or replacement personnel.

Teacher education institutions were identified as conducting the majority of preservice and in-service programs for personnel development.

Twenty-eight of the responding state units reported having programs for state leadership development. Thirteen of these states have preservice education and twenty-seven offer in-service programs. Thirteen units showed no programs for state personnel development.

TABLE 4

CURRENT PROBLEMS STATE DEPARTMENTS HAVE IN SECURING QUALIFIED PERSONNEL

Problems	Frequency	Percentage
Salary	20	48.0
Broad Experience	11	26.0
Qualified Personnel	8	19.0
Travel Involved	1	2.0
Politics	1	2.0
Knowledge of State	1	2.0

TABLE 5

STATE UNITS REPORTING AN ORGANIZED PROGRAM FOR STATE PERSONNEL DEVELOPMENT

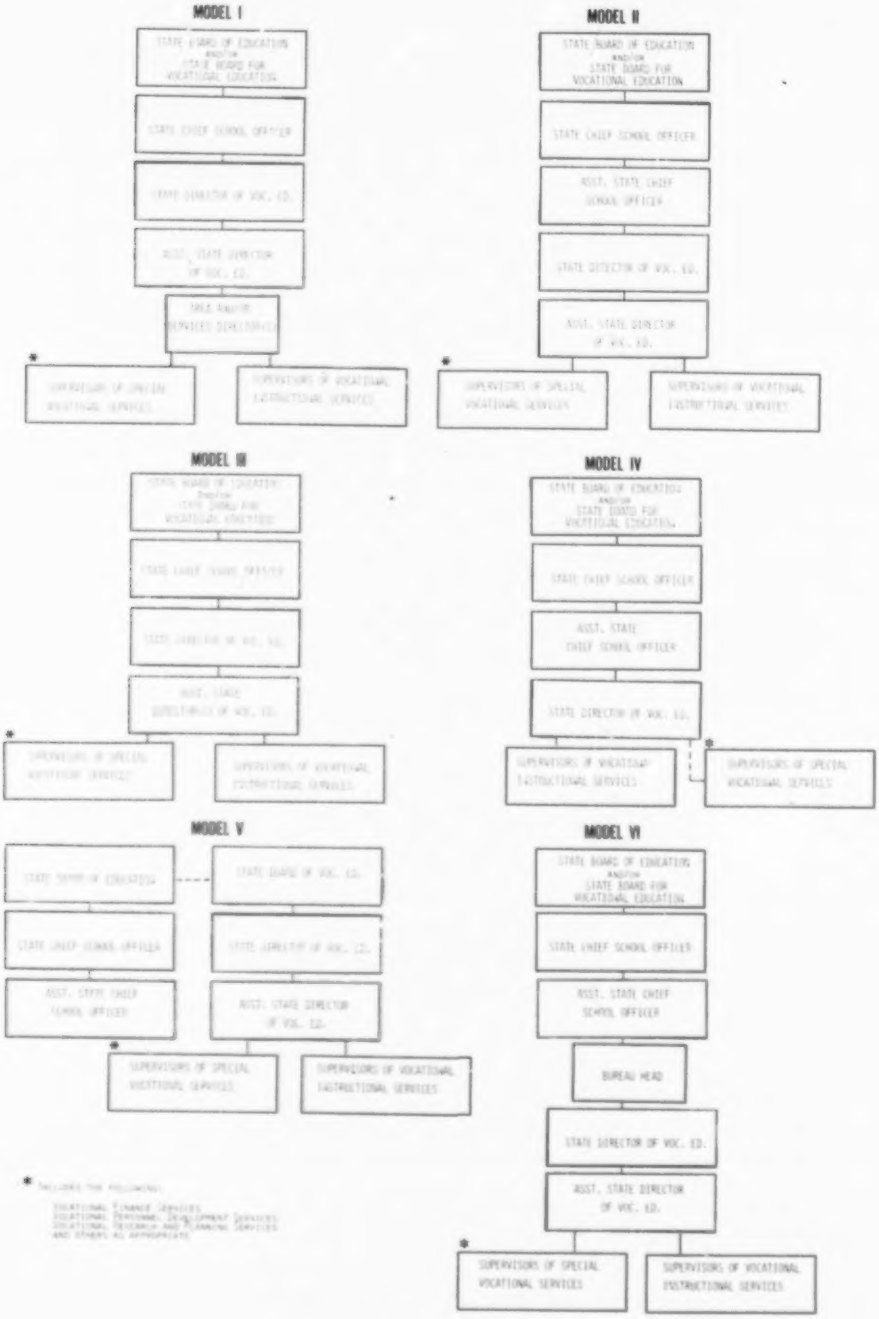
Have	Frequency	Percentage
Yes	28	68.0
No	13	32.0

Figure 1 depicts six generalized models which illustrate the most common organizational patterns used by state vocational education agencies in the United States. These models were arrived at by reviewing and synthesizing all organizational patterns reported in the various state plans for vocational education (FY-72).

Each state unit was then assigned to a model according to a visual inspection based on goodness of fit. State units were asked as a part of the demographic survey to indicate the organizational pattern they felt most nearly resembled their own.

FIGURE 1

GENERALIZED MODELS ILLUSTRATING THE MOST COMMON ORGANIZATIONAL PATTERNS USED BY STATE VOCATIONAL EDUCATION AGENCIES IN THE UNITED STATES


MODEL I
STATE BOARD OF EDUCATION AND/OR STATE BOARD FOR VOCATIONAL EDUCATION
STATE CHIEF SCHOOL OFFICER
STATE DIRECTOR OF VOC. ED.
ASST. STATE DIRECTOR OF VOC. ED.
AREA AND/OR SERVICES DIRECTOR(S)
*
SUPERVISORS OF SPECIAL VOCATIONAL SERVICES
SUPERVISORS OF VOCATIONAL INSTRUCTIONAL SERVICES
MODEL II
STATE BOARD OF EDUCATION AND/OR STATE BOARD FOR VOCATIONAL EDUCATION
STATE CHIEF SCHOOL OFFICER
ASST. STATE CHIEF SCHOOL OFFICER
STATE DIRECTOR OF VOC. ED.
ASST. STATE DIRECTOR OF VOC. ED.
*
SUPERVISORS OF SPECIAL VOCATIONAL SERVICES
SUPERVISORS OF VOCATIONAL INSTRUCTIONAL SERVICES
MODEL III
STATE BOARD OF EDUCATION AND/OR STATE BOARD FOR VOCATIONAL EDUCATION
STATE CHIEF SCHOOL OFFICER
STATE DIRECTOR OF VOC. ED.
ASST. STATE DIRECTOR(S) OF VOC. ED.
*
SUPERVISORS OF SPECIAL VOCATIONAL SERVICES
SUPERVISORS OF VOCATIONAL INSTRUCTIONAL SERVICES
MODEL IV
STATE BOARD OF EDUCATION AND/OR STATE BOARD FOR VOCATIONAL EDUCATION
STATE CHIEF SCHOOL OFFICER
ASST. STATE CHIEF SCHOOL OFFICER
STATE DIRECTOR OF VOC. ED.
SUPERVISORS OF VOCATIONAL INSTRUCTIONAL SERVICES
*
SUPERVISORS OF SPECIAL VOCATIONAL SERVICES
MODEL V
STATE BOARD OF EDUCATION
STATE BOARD OF VOC. ED.
STATE CHIEF SCHOOL OFFICER
STATE DIRECTOR OF VOC. ED.
ASST. STATE CHIEF SCHOOL OFFICER
ASST. STATE DIRECTOR OF VOC. ED.
*
SUPERVISORS OF SPECIAL VOCATIONAL SERVICES
SUPERVISORS OF VOCATIONAL INSTRUCTIONAL SERVICES
MODEL VI
STATE BOARD OF EDUCATION AND/OR STATE BOARD FOR VOCATIONAL EDUCATION
STATE CHIEF SCHOOL OFFICER
ASST. STATE CHIEF SCHOOL OFFICER
BUREAU HEAD
STATE DIRECTOR OF VOC. ED.
ASST. STATE DIRECTOR OF VOC. ED.
*
SUPERVISORS OF SPECIAL VOCATIONAL SERVICES
SUPERVISORS OF VOCATIONAL INSTRUCTIONAL SERVICES

* INCLUDES THE FOLLOWING:

VOCATIONAL FINANCE SERVICES
VOCATIONAL PERSONNEL DEVELOPMENT SERVICES
VOCATIONAL RESEARCH AND PLANNING SERVICES
AND OTHERS AS APPROPRIATE

TABLE 6

STATES REPORTING PRESERVICE AND/OR IN-SERVICE PROGRAMS FOR PERSONNEL DEVELOPMENT

Programs	Frequency	Percentage
In-service	27	66.0
Preservice	13	32.0

Twenty-three state units chose the model that had been previously assigned as most nearly fitting their organizational structure. This was fifty-six percent of the respondents.

Table 7 gives the frequency distribution for states indicating which organizational pattern model they perceived as most nearly resembling their own organization.

TABLE 7

STATES IDENTIFYING WITH THE SIX SUGGESTED ORGANIZATIONAL MODELS

Type	Frequency	Percentage
Model I	5	12.0
Model II	12	29.0
Model III	8	20.0
Model IV	5	12.0
Model V	5	12.0
Model VI	6	15.0

It is significant to note that nearly half (forty-nine percent) of the state units selected models II and III as those most nearly like their own organizations. These models appear to be most typical of state unit organizational patterns across the country.

Twenty of the participating state units indicated they believed there should be changes made in their organizational procedures and structures. Fifteen units suggested the changes to be made.

Twenty of the reporting state units utilize consulting committees in conducting their state personnel development programs. State education department staff teachers and teacher educators represent the occupational groups most often included in consulting committees.

TABLE 8

PERSONNEL SERVING ON CONSULTING COMMITTEES FOR STATE PERSONNEL DEVELOPMENT PROGRAMS

Occupational Groups	Frequency	Percentage
State Staff	14	34.0
Teachers	11	27.0
Teacher Educators	10	24.0
Local Vocational Personnel	6	15.0
Students	6	15.0
State Advisory Councils	6	15.0

TABLE 9

CONSULTING COMMITTEES SERVING STATE DIVISIONS OF VOCATIONAL EDUCATION IN THE AREA OF PERSONNEL DEVELOPMENT PROGRAMS*

Functions	Frequency	Percentage
Determination of Needs	17	42.0
Evaluation	11	26.0
Priority and Goal Determination	6	15.0
Review and Recommend Proposals	3	7.0

*Note: These represent the four (4) basic functions of consulting committees as indicated by state divisions of vocational education.

As was stated earlier, the information reported here includes only forty-one of the fifty-six state vocational education units. A complete report will be prepared and distributed to the various state directors of vocational education after all survey forms have been completed.

Information Needs of State Directors

By J. David McCracken*

The Center for Vocational and Technical Education engages in programmatic research, development, and diffusion activities. It also operates the ERIC Clearinghouse on Vocational and Technical Education. Many of you are aware of efforts of the Clearinghouse to disseminate research and curriculum through its information analysis program, user services, *Abstracts of Research Materials in Vocational and Technical Education* (ARM), and *Abstracts of Instructional Materials in Vocational and Technical Education* (AIM). In addition to these efforts, the Supportive Information for the Comprehensive Career Education Model (SI/CCEM) project at The Center is an effort to acquire, process, assess, and make available information useful in the development and operation of career education. These materials will be announced in AIM and ARM, beginning with the Volume 5, Number 3 issue. Many agencies in addition to The Center are adding to a body of knowledge that could strengthen the capacity of state educational systems to provide effective career education programs.

However, such research findings are not being incorporated into operating programs soon enough or in sufficient quantity. Information that is available often is not in time or in the proper form to assist decision-makers.

In addition to problems of form and time, research does not always relate to real problems of practitioners. Knowledge of the information needs of state directors of vocational education should provide a basis for improvement of information services and products. Such knowledge should also provide sound input for problem-oriented research, development, and diffusion activities, thereby resulting in more effective linkage of research and practice. The purpose of this study was to identify the critical problems of state directors of vocational education and the information sources they utilized.

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*Dr. McCracken is assistant director of information systems at The Center for Vocational and Technical Education, The Ohio State University, Columbus, Ohio.

Objectives

Objectives guiding the conduct of the study were:

1. Identification of critical problems for which little substantive information is available

2. Description of methods used in seeking information

3. Identification of information sources normally used

4. Identification of criteria employed in the selection of information sources

Methodology

State directors of vocational education in fifteen states were selected in a stratified random sample. Data necessary to fulfill study objectives were gathered by mail questionnaire and fifteen telephone interviews conducted at two-week intervals. A total of 216 telephone interviews were conducted through which 341 major professional problems were identified. Problems were classified according to a scheme used in the book by Goldhammer, et al., *Issues and Problems in Contemporary Educational Administration*.

Findings

The median participant had nine years' experience at the state level, was forty-nine years of age, had six years of education following high school, had no graduate training in the past five years, and served a secondary school population of 80,000 students, a post-secondary population of 15,000 students, and an adult population of 4,000 students.

Major professional problems of state directors (in order of priority) related to: (1) administrative leadership, (2) finance, (3) educational change, (4) teachers, (5) instruction, and (6) major social issues. Major administrative leadership problems related to program planning, staff, organization, and decision-making. Major finance problems related to legislative control and obtaining and disbursing federal and state aid. Nearly ninety percent of the problems required information for their resolution. Problems related to administrative leadership required the least amount of information, and problems related to finance required the largest amount of information.

The major method used by state directors in obtaining information was to "delegate" the responsibility to someone else. The information-gathering task was delegated to substantive personnel in sixty percent of the cases and to information specialists in forty percent of the cases.

ERIC was the major outside agency used as an information source. The U.S. Office of Education was utilized more than any other state or federal institution. Print media utilized extensively included the *American Vocational Journal*, *Abstracts of Instructional Materials in Vocational and Technical Education*, and *Abstracts of Research Materials in Vocational and Technical Education*.

It appeared the preferred type of information was raw or treated data followed by expert opinion. Research information was needed least. Descriptive research was preferred over experimental studies.

Recommendations

The findings and conclusions of the study serve as a basis for the following recommendations:

1. That information dissemination systems develop a means to provide state directors of vocational education necessary data to assist them in resolving their critical problems related to administration and finance.

2. That information specialists be more effectively utilized to digest information and summarize it in a form useful for decision-making by state directors of vocational education.

3. That information relating to durable problems of national significance be reviewed and analyzed by information dissemination systems such as the Information Services Division of The Center for Vocational and Technical Education.

4. That in-service education programs be developed and utilized to educate personnel within state divisions of vocational education in the use of information dissemination systems, especially those personnel upon whom state directors rely for information related to substantive problems.

5. That information agencies expect major utilization of indexes, bibliographies, and substantive reviews by personnel other than the state director of vocational education.

6. That a national selective dissemination of information service be offered state directors of vocational education

to provide information on problems related to administrative leadership, finance, and educational change.

7. That states provide information services to state directors through the research coordination unit, state department of education research office, or some other easily accessible agency.

8. That a list of consultants with their fields of expertise be developed so state directors might systematically select personal information sources to help resolve critical problems.

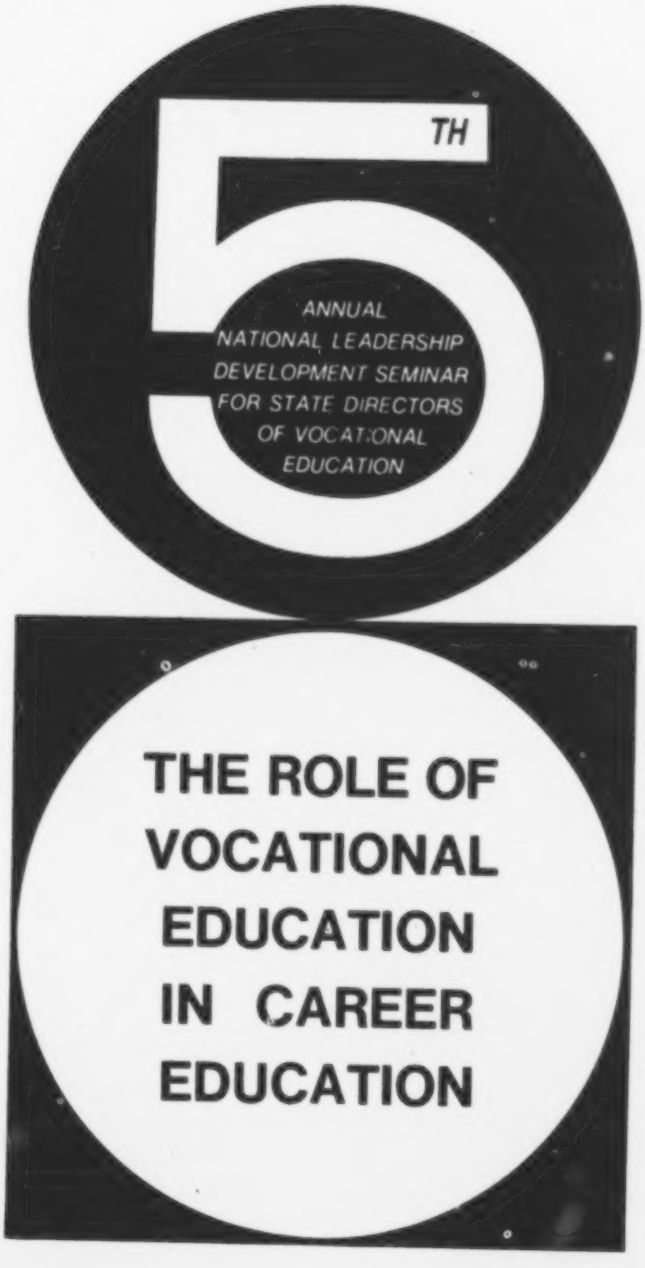
9. That critical problems identified in this study be utilized in the preparation of leadership personnel for vocational education.

The Center, through its Information Services Division, is planning to upgrade and improve information services available to vocational and technical educators. We hope to play a major role in bringing to fruition many of the recommendations that are an outgrowth of this study.

appendix

EXHIBIT A

SEMINAR AGENDA



5TH

ANNUAL
NATIONAL LEADERSHIP
DEVELOPMENT SEMINAR
FOR STATE DIRECTORS
OF VOCATIONAL
EDUCATION

THE ROLE OF VOCATIONAL EDUCATION IN CAREER EDUCATION

NATIONAL ASSOCIATION
STATE DIRECTORS
VOCATIONAL EDUCATION

THE CENTER FOR VOCATIONAL
AND TECHNICAL EDUCATION
THE OHIO STATE UNIVERSITY
1900 Kenny Rd. Columbus, Ohio 43210

The National Association of State Directors of Vocational Education and The Center for Vocational and Technical Education wish to extend a welcome to the regional USOE Bureau of Adult, Vocational and Technical Education personnel, the state directors of adult education, and the U.S. Office of Education personnel from Washington, D.C. They will be participating with us in the Fifth Annual National Leadership Development Seminar for State Directors of Vocational Education. We are happy to have them join us and feel they will contribute greatly to the success of the seminar.

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Byrl R. Shoemaker, Ohio
James L. Reid, Maryland
R. D. Anderson, NASDVE
Michael Russo, USOE
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The Role of Vocational Education in Career Education

SEMINAR PURPOSE

To facilitate leadership development of state directors of vocational education and key members of their staffs by providing a forum for presentations and discussions leading to better conceptualization, identification of needs, and determination of responsibilities and functions of state divisions of vocational education personnel regarding career education

SEMINAR PROBLEM

A high national priority for all of education is the implementation of career education. One of the problems related to this goal is the fact that the role of vocational education in the career education concept has not been clearly defined. The National Association of State Directors of Vocational Education adopted a position paper on career education in 1971 at the fourth annual national leadership seminar held in Las Vegas, Nevada. Since state directors of vocational education will be called upon and expected to give leadership to the development of programs relating to the concept of career education, it is important that they be knowledgeable and competent in this critical area. It is also necessary that guidelines and information papers be developed which define the state vocational education staff's role and function in career education.

SEMINAR OBJECTIVES

1. To review foundations underlying the concept of career education as currently formulated

2. To study innovative concepts, processes, and systems useful in the development of career education programs at the following organizational levels:
   a. Elementary school
   b. Junior high school and middle school
   c. Senior high school
   d. Beyond senior high school

3. To conceptualize state planning in vocational education in the following critical areas related to the implementation of programs of career education:
   a. Role of the state director of vocational education
   b. Adjustments needed in total educational programs of state agencies
   c. Strategies for cooperation with other post-secondary education agencies in the development of programs of career education
   d. Personnel development needs and preparation programs
   e. Research needs
   f. Sources of funding for career education

TUESDAY **SEPTEMBER 19, 1972**

9:00 a.m. - 1:00 p.m. REGISTRATION Lobby

FIRST GENERAL SESSION

1:00 p.m. Suite B

CHAIRMAN

Louis D. Ridle, state director of vocational education, Alaska

OPENING REMARKS

WELCOME

Donald Findlay, associate director of The Center for Vocational and Technical Education

GREETING

George L. Sandvig, president of the National Association of State Directors of Vocational Education

1:30 p.m. FOUNDATIONS OF CAREER EDUCATION

Norman Gysbers, professor of education, University of Missouri

2:15 p.m. CURRENT STATUS OF CAREER EDUCATION IN THE STATES

John Coster, director of the Center for Occupational Education, North Carolina

3:00 p.m. COFFEE BREAK

3:30 p.m. GROUP REACTION TO PRESENTATIONS

MODERATOR

Neal D. Andrew, Jr., chief of the Division of Vocational-Technical Education, New Hampshire

TUESDAY

4:30 p.m. ADJOURNMENT

6:00 p.m. HOSPITALITY HOUR WITH THE STATE DIRECTORS OF ADULT EDUCATION

Sponsored by the Charles E. Merrill Publishing Company, Columbus, Ohio

John Buterbaugh will be the host.

WEDNESDAY **SEPTEMBER 20, 1972**

SPECIAL EVENT

8:00 a.m. BREAKFAST Suite B

EYE-OPENER

Byrl R. Shoemaker, state director of vocational education, Ohio

CAREER EDUCATION AND THE AMERICAN VOCATIONAL ASSOCIATION

Dean Griffin, associate director of the American Vocational Association

9:30 a.m. STUDY GROUPS

Report directly to your assigned study group as announced.

The purpose of these study groups is to develop a series of problem review papers on questions related to the implementation of career education in the various state units.

GROUP I

Problem - What is the role of the state director of vocational education in establishing career education in a state?

Leader - **Glen H. Strain,** assistant commissioner for vocational education, Nebraska

GROUP II

Problem - What adjustments are needed in the total programs of state educational agencies in order to implement career education?

Leader - **Conrad C. Shuman,** director of vocational education State Department of Public Instruction, Dover, Delaware

GROUP III

Problem - What strategies may be used for facilitating the development of post-secondary programs of career education?

Leader - **Leonard Kunzman**, state director of vocational education, Oregon

GROUP IV

Problem - What will be the personnel needs in developing and maintaining programs of career education, and what is the role of the state director of vocational education in preparing these personnel?

Leader - **Paul L. Schalles**, assistant state director of vocational education, Pennsylvania

GROUP V

Problem - What are the areas of concern related to the role in career education of the state divisions of vocational education which need to be researched and studied?

Leader - **Carl F. Lamar**, assistant state superintendent for vocational education, Kentucky

11:30 a.m. LUNCH (individually arranged)

WEDNESDAY **SEPTEMBER 20, 1972**

SECOND GENERAL SESSION

1:00 p.m. Suite B

CHAIRMAN

Samson S. Shigetomi, state director of vocational education, Hawaii

DESIGNING COMPREHENSIVE PROGRAMS OF CAREER EDUCATION FOR THE ELEMENTARY SCHOOL STUDENT

Edward Hauck, curriculum group leader for K-6, The Center for Vocational and Technical Education

2:00 p.m. DESIGNING COMPREHENSIVE PROGRAMS OF CAREER EDUCATION FOR THE MIDDLE SCHOOL AND JUNIOR HIGH SCHOOL STUDENT

Elizabeth Simpson, director of the National Curriculum Management Center, The Bureau of Adult, Vocational and Technical Education, USOE

3:00 p.m. COFFEE BREAK

3:30 p.m. THE PLACE OF VOCATIONAL EDUCATION IN CAREER EDUCATION AS VIEWED BY THE USOE

Michael Russo, director of the Division of Vocational and Technical Education, USOE

5:00 p.m. ADJOURNMENT

7:00 p.m. MEETING OF THE NATIONAL ASSOCIATION OF STATE DIRECTORS OF VOCATIONAL EDUCATION

THURSDAY **SEPTEMBER 21, 1972**

THIRD GENERAL SESSION

9:00 a.m. Suite B

CHAIRWOMAN

Maria S. Lacot, assistant secretary for vocational-technical education, Puerto Rico

DESIGNING COMPREHENSIVE PROGRAMS OF CAREER EDUCATION FOR THE SENIOR HIGH SCHOOL STUDENT

Jerry Olson, assistant superintendent of schools, Pittsburgh, Pennsylvania

10:00 a.m. COFFEE BREAK

10:30 a.m. DISCUSSION

MODERATOR

Arthur Ericson, assistant state director of vocational-technical education, Vermont

11:30 a.m. R & D REPORT: INFORMATION NEEDS OF STATE AND LOCAL ADMINISTRATORS IN VOCATIONAL EDUCATION

David McCracken, The Center for Vocational and Technical Education

THURSDAY **SEPTEMBER 21, 1972**

FOURTH GENERAL SESSION

1:15 p.m. Suite B

CHAIRMAN

Byrl R. Shoemaker, state director of vocational education, Ohio

R & D REPORT: CHANGING ROLES AND FUNCTIONS OF LEADERSHIP PERSONNEL IN STATE VOCATIONAL EDUCATION AGENCIES

Daniel E. Koble, Jr., The Center for Vocational and Technical Education

1:45 p.m. CAREER EDUCATION PROGRAMS IN OPERATION IN THE STATE OF OHIO

Douglas Peterson, coordinator of career development, Minford Local Schools, Minford, Ohio

R. Thomas Scherer, director of vocational education, Toledo City School District, Toledo, Ohio

Nicholas J. Topougis, coordinator of the career program, Goodyear Junior High School, Akron, Ohio

3:15 p.m. TOUR OF THE CENTER FOR VOCATIONAL AND TECHNICAL EDUCATION, 1900 KENNY ROAD

Meet in the lobby of The Chirstopher Inn to board a chartered bus.

THURSDAY

EVENING SESSION

6:00 p.m. HOSPITALITY HOUR

Sponsored by the Brodhead-Garret Company, Cleveland, Ohio

Thomas Rogers will be the host.

7:00 p.m. DINNER

TOASTMASTER

Robert Worthington, associate commissioner for The Bureau of Adult, Vocational and Technical Education, USOE

A LOCAL SUPERINTENDENT OF SCHOOLS SUGGESTS HOW STATE DIVISIONS OF VOCATIONAL EDUCATION CAN ORGANIZE TO SERVE THE CAREER EDUCATION NEEDS OF LOCAL EDUCATIONAL AGENCIES

Ted Bell, superintendent of schools, Granite School District, Salt Lake City, Utah

FRIDAY **SEPTEMBER 22, 1972**

FIFTH GENERAL SESSION

8:00 a.m. Suite B

CHAIRMAN

Robert P. VanTries, assistant commissioner of vocational-technical education, Minnesota

REPORT OF STUDY GROUPS

Group leaders

DISCUSSION SESSION

9:00 a.m. DESIGNING COMPREHENSIVE PROGRAMS OF CAREER EDUCATION FOR STUDENTS BEYOND THE SENIOR HIGH SCHOOL LEVEL

Paul Weatherly, president of Delaware Technical and Community College

10:00 a.m. COFFEE BREAK

10:30 a.m. A SYNTHESIS OF RESEARCH IN PROGRESS ON CAREER EDUCATION MODELS

A. J. Miller, associate director of the Division of Field Services and Special Projects, The Center for Vocational and Technical Education

11:30 a.m. SEMINAR EVALUATION

12:00 Noon ADJOURNMENT

EXHIBIT B

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---

*See Appendix, Exhibit A, Seminar Agenda," (page 5) for the problem studied by each group.

See Appendix, Exhibit B, "Program Presenters and Participants," for the titles and addresses of leaders and participants in the study groups.

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EXHIBIT D

PRELIMINARY SURVEY OF SEMINAR PARTICIPANTS' ATTITUDES ABOUT SELECTED STATEMENTS RELATING TO CAREER EDUCATION

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An attitude inventory relating to the role of vocational education in career education was administered on the first day of the seminar on a voluntary participation basis. Sixty-six individuals completed the instrument that is shown at the end of this exhibit.

Demographic data about the respondents was collected in the following areas, present position, age, highest degree earned, and years in present position.

Based upon this sample, two basic statistical considerations were made. First, an item analysis of the twenty-two attitudinal items was generated using the Kuder-Richardson formula for internal consistency (reliability). It was found that nine of the twenty-two items did not correlate substantially with the other items. These were items numbered 1, 4, 7, 8, 10, 11, 12, 16, 17. A visual inspection of these items serves to indicate an ambiguity or lack of clarity in their structure and/or function. These nine items were eliminated from the attitudinal scale. A second item analysis of the remaining thirteen items revealed a reliability coefficient of .814, a moderately high degree of homogeneity of items.

The second consideration was that of determining whether or not a relationship exists between the demographic variable (position, age, education, and years in present position) and the total scores of the revised thirteen item attitudinal survey. A cross-tabulation of the attitudinal scores by the demographic variables revealed no significant relationship between demographic variables and attitude toward career education. This *may* be due to three factors; first, the sample size was rather small for this analysis. Secondly, attitude toward career education may operate *independently* of the age, position, education, and years in present position (correlations between these items were all near zero). Finally, we are assuming that "The Role of Vocational Education in Career Education" instrument is a valid index of attitudes toward career education. An inspection of this instrument would seem to indicate face validity; however, no criterion-related validity has been established.

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The following pages contain a frequency distribution of responses for scale values reported by individual items.

The Role of Vocational Education in Career Education

Seminar participants were requested to respond to the following statements on a voluntary basis. This is a summary of the frequency with which they indicated agreement, disagreement, or indecision based on their own responses.

FREQUENCY DISTRIBUTION BY SCALE VALUES
N=68

		STRONGLY AGREE	AGREE	UNCERTAIN	DISAGREE	STRONGLY DISAGREE	NO RESPONSE
1.	Career education is an educational concept and not an educational program.	55%	34%	3%	5%	2%	2%
2.	Career education is an attempt to integrate the best of vocational and academic programs into a unified instructional program that is designed to make education relevant for each individual learner.	38	43	9	6	3	2
3.	Career education will eventually replace the traditional general studies track in secondary schools.	21	29	22	24	4	0
4.	A moratorium should be declared on the expansion of career guidance into the elementary school until its functions have been more clearly delineated and alternative solutions have been explored.	2	13	15	53	18	0

FREQUENCY DISTRIBUTION (Cont'd)

	STRONGLY AGREE	AGREE	UNCERTAIN	DISAGREE	STRONGLY DISAGREE	NO RESPONSE
5. Career education is a concept developed by academic educators in order to get their hands on federal vocational education money.	2%	7%	9%	35%	47%	0%
6. Vocational educators will need to develop all the foundations, curricula, and instructional materials for career education since academic educators have neither the experience nor the interest in this area.	0	4	6	56	34	0
7. Many state departments of education already have clearly defined and established plans for the implementation of career education.	7	27	35	29	2	0
8. Most local educational agencies who claim to have programs of career education in reality have done nothing more than change the name of vocational education to career education.	2	21	21	49	9	0
9. The subject under discussion should be referred to as careers education instead of career education.	0	16	15	50	19	0
10. Career education should encompass all aspects of the learner's life and include aesthetic, physical, and expressive experience as well as vocational experiences.	40	49	3	9	0	0

FREQUENCY DISTRIBUTION (Cont'd)

	STRONGLY AGREE	AGREE	UNCERTAIN	DISAGREE	STRONGLY DISAGREE	NO RESPONSE
11. A state director of vocational education should assume a leadership role in implementing career education in his state.	40%	44%	9%	6%	2%	0%
12. If vocational educators ignore the whole career education movement, it will soon die a peaceful death.	6	27	9	40	18	2
13. The task of teaching skills to students so they can become employed is more important than career education.	4	15	7	57	15	2
14. Vocational educators should wait until academic educators contact them before attempting to formulate programs for career education.	0	0	2	50	49	0
15. The alignment of academic education objectives with those of vocational education is an impossible task.	0	4	9	51	35	0
16. The immediate and pressing need in career education is more money.	7	31	16	37	9	0
17. State divisions of vocational education should be renamed state divisions of career education.	2	0	9	54	35	0
18. Programs of post-secondary vocational and technical education are presently adequate to meet the needs of the learner.	0	10	4	63	22	0

FREQUENCY DISTRIBUTION (Cont'd)

	STRONGLY AGREE	AGREE	UNCERTAIN	DISAGREE	STRONGLY DISAGREE	NO RESPONSE
19. Programs of post-secondary vocational and technical education should not be included in the career education concept.	2%	4%	3%	46%	44%	2%
20. Teacher education programs, both in-service and preservice, are presently adequate in preparing needed personnel in career education.	0	4	0	34	60	2
21. More effort should be devoted to the research and study of problems related to the establishment of career education.	19	50	9	16	4	2
22. The public schools should assume all of the responsibility for providing career education.	2	10	2	56	28	3

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